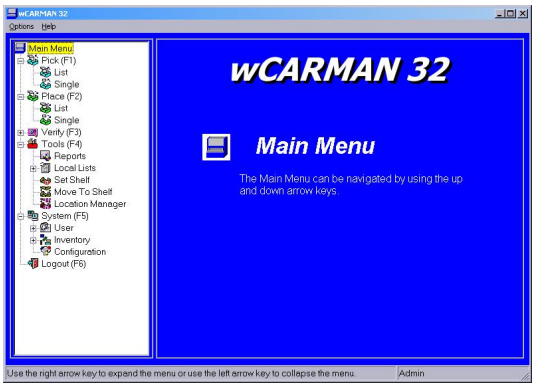
KARDEX
VCA



w C A R M A N ™

O P E R A T O R S
M A N U A L

Issued: June 2009

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Valid for wCARMAN™ Release 1.6.1.yyyymmdd

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IMPORTANT NOTICE

This software is made available for use under the terms of your 'Software Licence Agreement'.

For new equipment installations Kardex VCA Vertical Storage System software is configured by our staff and operation of the equipment (Carousel / Shuttle® / SortBench) and utility software is confirmed as part of the commissioning process.

The software warranty will be void if the Customer or their representative changes, modifies or makes any additions to the hardware and/or software of the Vertical Storage System without the written permission of Kardex VCA Pty Ltd. Kardex VCA will not withhold that permission if the changes will have no material affect on the system operation or performance.

The **Customer** is responsible for the maintenance of all **system** and **data files** including backup and restoration procedures.

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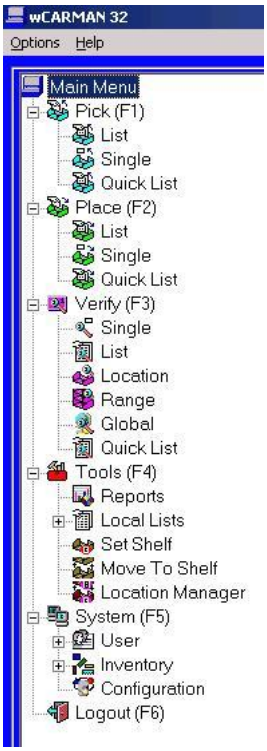
1 Introduction

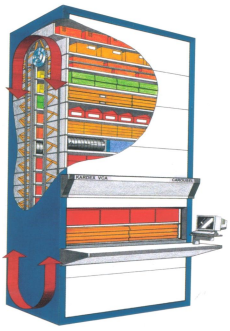
wCARMAN™ is Kardex VCA's proprietary native Windows application for management of inventory stored in Kardex Vertical Storage Units. wCARMAN™ will run on all Windows™ operating systems and uses an ODBC compliant SQL database which can be implemented as a STANDALONE or CLIENT / SERVER configuration.

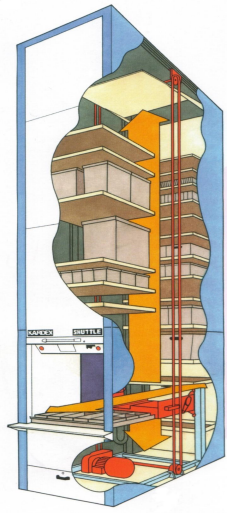
wCARMAN™ provides comprehensive functionality for managing the storage and retrieval of inventory items in both a distribution and maintenance environment. wCARMAN™ is part of Kardex VCA's complete Inventory Handling System (IHS) which extends to Management browsers, utility file and data handling, full warehouse order printing and distribution, seamless integration with Kardex VCA's SortBench™ for high throughput order picking and RackMAN™ for control of inventory held in static racking.



The following functionality is available in the standard wCARMAN product:

- Range of Storage (Place) Modes allowing transparent changeover from one mode to the other
- Range of Retrieval (Pick) Modes
- Barcode Product Identification
- Integrated Lot Number Support
- Comprehensive text file based interface for data exchange and Pick Slip processing.
- Support for peripheral equipment such as Barcode Scanners, Thermal Label Printers, Integrated Weigh Scales, Remote Confirmation Buttons
- Practical Global and Cyclic Stocktake (Verify) functionality
- Range of System Reports including Stock Report, Location Report, Aged Inventory Report & Audit Report
- Customised User Profiles for operator access
- System data access via network browser tool 'Kardex IHS' – Inventory Handling System
- Support for customised functionality using system Plug-ins
- Integrated PLC diagnostics
- Dial-up diagnostic support





wCARMAN™ connects to your Kardex Carousel or Shuttle® using a standard serial connection to the machine PLC, inbuilt T3 controller or C2000 controller.

wCARMAN™ is designed to be user friendly and understood by Stores personnel. It is a menu driven package requiring minimum use of the PC keyboard. Functions are displayed using a collapsing tree structure similar to Windows Explorer.

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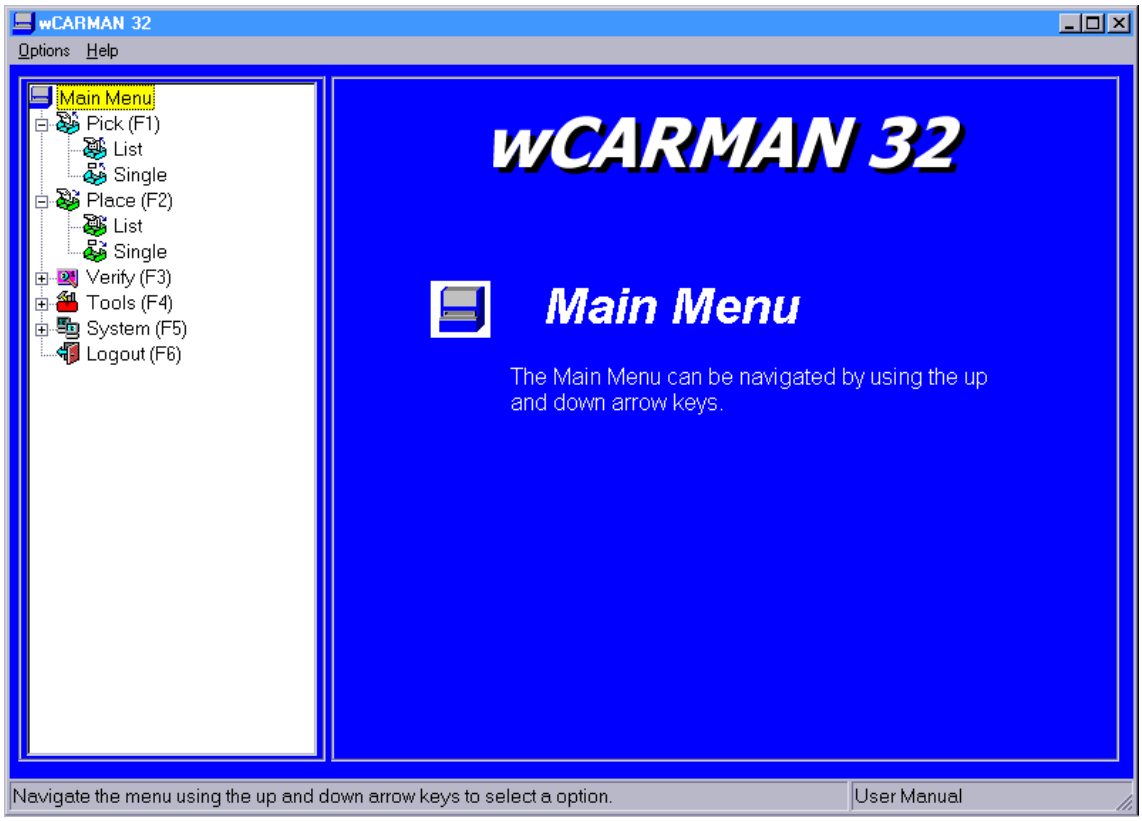
All available high level functions are displayed to the operator on Login. Each function has a unique ICON displayed in the tree structure and on the associated form making identification of the desired operation easy.

All forms are colour coded for ease of identification and all quantity and location information is presented using high contrast colours for easy visibility at a distance.



wCARMAN™ can be conveniently used *without* a mouse. Forms have been designed with consideration to natural process flow and all functions can be used intelligently with basic keystrokes such as the **Enter**, **Tab** and the arrow keys (← → – ↓).

The main operations that wCARMAN™ provides are:

- *Place*
  For storage of parts into the machine

- *Pick*
  For retrieval of parts from the machine

- *Verify*
  For confirmation that location quantities are correct

Each of these processes is explained in the wCARMAN™ Operators Manual. There is also a section in the manual to describe how to stock take your system. wCARMAN terminology for stock take is ‘Verify’.

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The other operations that wCARMAN™ offers are described in this wCARMAN Technical Manual and can be accessed in wCARMAN™ via the Tools and System Menus. These menu items are:

- *Reports [Tools Menu]*
  Used to generate standard reports

- *Local Lists [Tools Menu]*
  Used to create Pick, Place or Verify lists

- *Manual Machine Operations [Tools Menu]*
  Used to rotate the Carousel to a target shelf location, synchronise the access level carrier to wCARMAN™ or to present a specific tray to the Shuttle® access.

- *Users [System Menu]*
  Used to Add, Change or Delete users

- *Inventory [System Menu]*
  Used to Add, Change or Delete inventory items

- *Configuration [System Menu]*
  Used to customise wCARMAN™ for your site

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2 Loading Instructions

If you are implementing a new storage system at your site, Kardex VCA will generally have conducted a site survey and provided a recommendation for the shelf configuration to be used in your system. We will set up wCARMAN™, prior to system delivery, based on the location size mix suggested in the sales proposal document.

Kardex VCA has a range of 400mm and 600mm storage tote bins suitable for use in Carousel and Shuttle® units. The number of bins per shelf is determined by the width of the shelf. Our Carousels will generally use a 3600mmW carrier for 12 Large bins and our Shuttles® will use a 3000mmW tray for 10 Large bins:

Bin Type	*Dimensions*	*Max. No. of Locs. / Bin*
Small	150mmW x 600mmD x 50mmH	12
Medium	150mmW x 600mmD x 100mmH	8
Large	300mmW x 600mmD x 150mmH	4

The maximum Tote Bins are shown in the following table:

Tote Type:	**VCT 01 (Small Tote)**	**VCT 02 (Medium Tote)**	**VCT 03 (Large Tote)**
Max. Compartments	**12**	**8**	**4**
Length (mm)	600	600	600
Width (mm)	150	150	300
Height (mm)	50	100	140
Max. Locs / Bin	12	8	4

Kardex VCA uses a location naming convention to identify the bin location sizes. The naming convention uses the base bin size plus the number of locations in the bin to identify the location size.

For example; a ‘large’ bin with 4 locations is termed a ‘Large4’. Similarly, a ‘medium’ bin with 8 locations is termed a ‘Medium8’. The open locations are referred to as ‘OpenHalf’ or ‘OpenFull’. There are 12 of these locations across a shelf. ‘OpenFull’ locations use the full clear height of the carrier and ‘OpenHalf’ locations use half the carrier clear height. An ‘OpenFull’ location is equivalent to 65 litres of volume. An ‘OpenHalf’ location is equivalent to 32 litres of volume.

This terminology is used to describe the proposed bin configuration and is also used within the wCARMAN inventory software to identify location sizes during the initial loading and following replenishment process.

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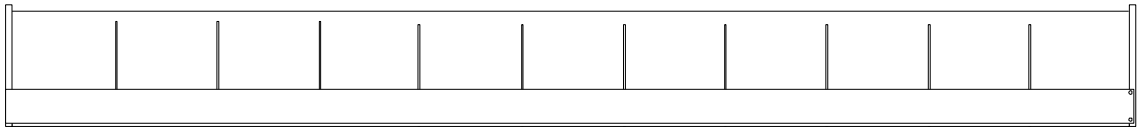
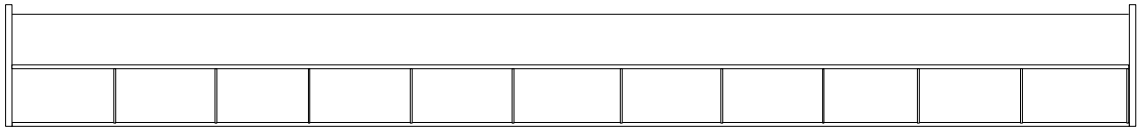
Use of Medium and Large tote bins is shown in the following picture:

Each of the carrier / bin combinations is shown below:

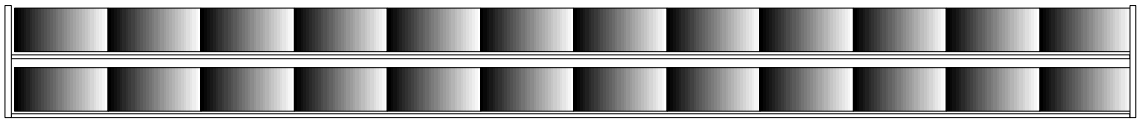
Open Full – 1 Shelf / 12 Locations using upright dividers



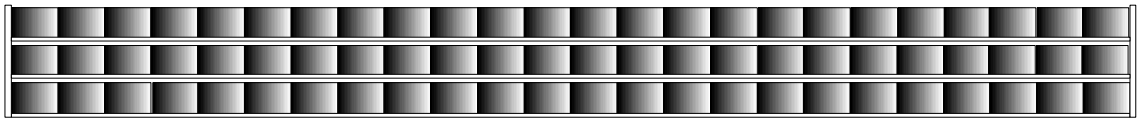
Open Half – 2 Shelves / 24 Locations using upright dividers



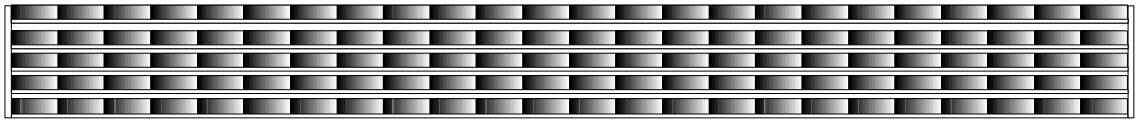
Large Bins – 2 Shelves / 24 Bins per Carrier / Up to 96 Locations



Medium Bins – 3 Shelves / 72 Bins per Carrier / Up to 576 Locations



Small Bins – 5 Shelves / 120 Bins per Carrier / Up to 1440 Locations



3600mm

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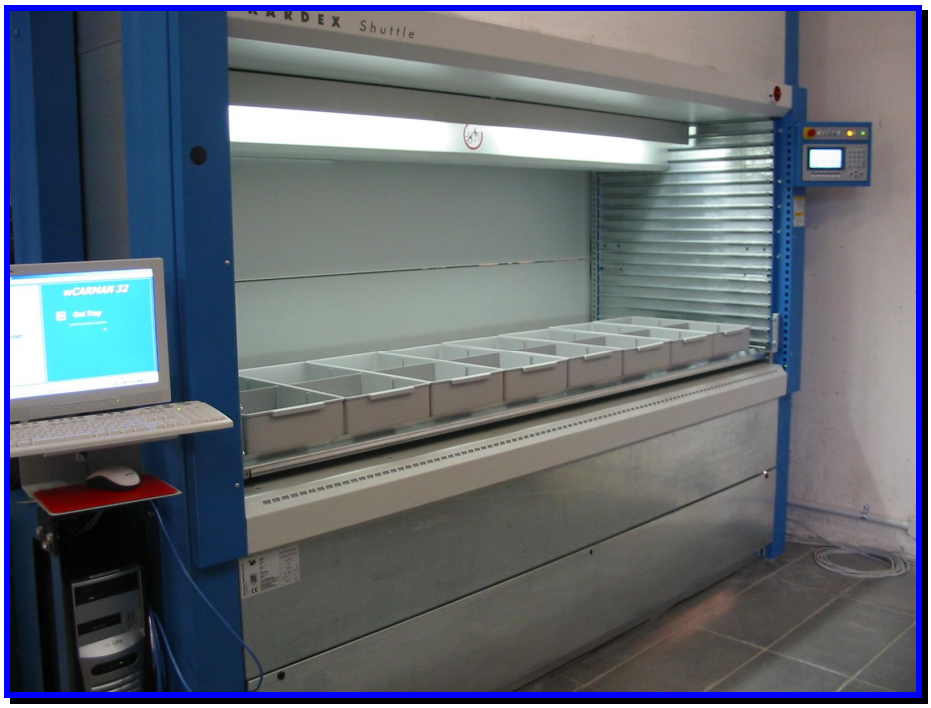
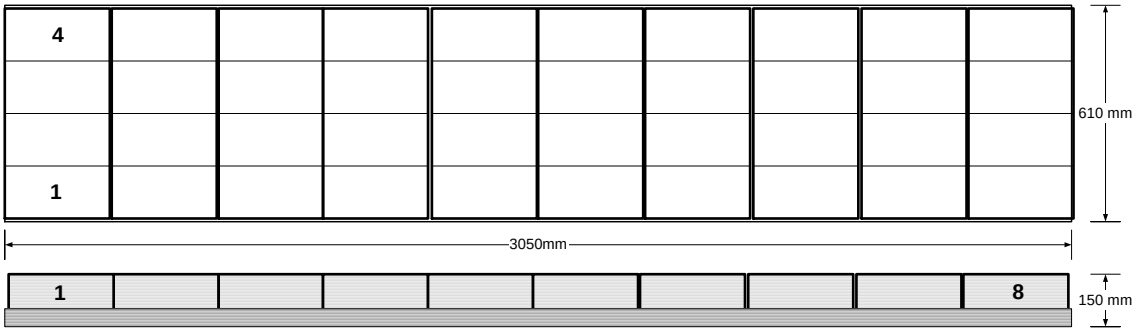
In the case of the Shuttle®, the storage totes sit on the tray and all locations are accessible from above the tray, as shown in the image below:

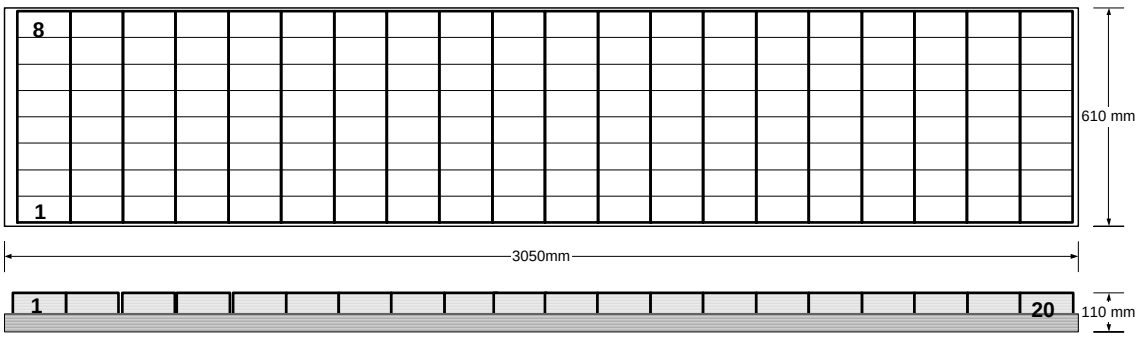


Locations in the bins would be accessible as shown below, when used with a 3050mmW Shuttle Tray:

Large4 Bins – 10 Bins per Tray / 40 Locations



Medium8 Bins – 20 Bins per Tray / 80 Locations



NOTE: If you do not have a copy of the suggested shelf configuration, please contact Customer Services on +61 2 6056 5173.

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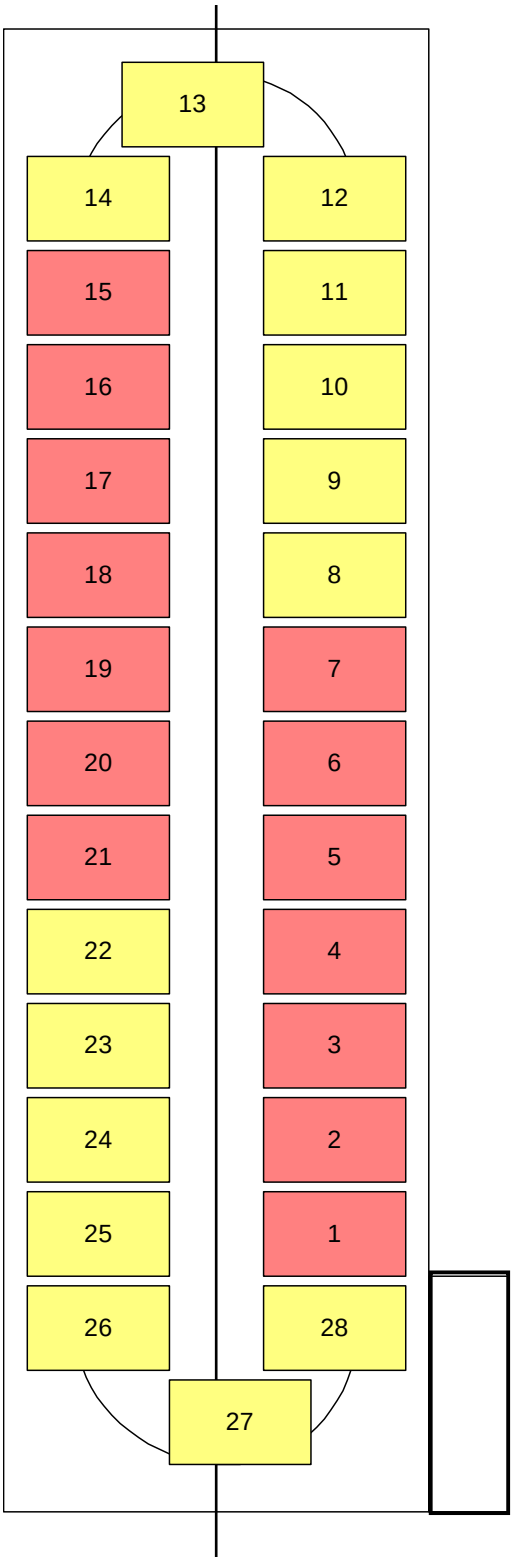
2.1 Vertical Carousels

Your vertical Carousel operates on the counter-balance principle. This means that both front and back carriers should be reasonably in balance throughout the entire cycle.

When determining the system shelf configuration, Kardex VCA will distribute the bin / locations sizes evenly around the 4 quadrants of the machine. A 28 carrier machine will have the following distribution:



Carousel Type: 500kg 2816

The four quadrants of the 28 carrier Carousel are:

Q1:	Carrier	1	⇨	7
Q2:	Carrier	8	⇨	14
Q3:	Carrier	15	⇨	21
Q4:	Carrier	22	⇨	28

When initially loading your Carousel you should load opposite carriers and thus maintain a reasonable balance.

For example, in a 28 carrier Carousel you should load in the following order:

1, 15; 2, 16; 3, 17; 4, 18; 5, 19; 6, 20; 7, 21; 8, 22; 9, 23; 10, 24; 11, 25; 12, 26; 13, 27; 14, 28;

You should endeavour to keep your Carousel evenly loaded at all times.

IMPORTANT:

The maximum out-of-balance tolerance is 20%.

In the case of the 28 carrier Carousel this means that no more than 3 carriers can be unloaded on one side of the machine with out causing a balance problem.

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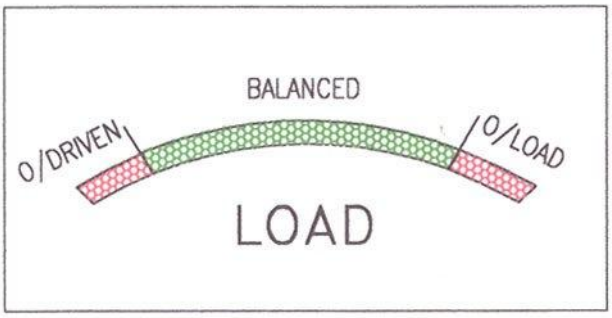
Kardex VCA Carousels are fitted with a Load Meter on the front RHS Local Panel to assist you to identify if you have an out of balance situation.

You will know if your Carousel is out-of-balance by the following symptoms:

(i) The out-of-balance indicator will show an overload condition. The pointer will be in one of the red zones most of the time or is moving dramatically from one side of the indicator to the other.



(ii) Motor noise indicates extra load at certain stages of the cycle.

(iii) The unit starts and runs roughly and trips the electronic drive.

(iv) The inverter displays high current during normal operation. Kardex VCA would expect Carousels to operate at 40 to 50% of full current in normal circumstances.

If any of these symptoms are noted, it is recommended that you adjust the load to ensure better balance.

Consistently running your Carousel out-of-balance will cause damage!

WARNING:
The capacity of each carrier in your Carousel is 100 / 250 / 500 / 750kg including any intermediate shelves. Check the Serial Number plate on the LHS of your machine for carrier rating.

Items stored in the carrier must lie within the bounds of the carrier. Items must not protrude over the front lip or exceed the height of the carrier side.

Failure to observe these conditions could damage your Carousel and is not covered under Kardex VCA machine warranty.

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2.2 Shuttle® Vertical Lift Unit

To be added.

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3 Getting Started

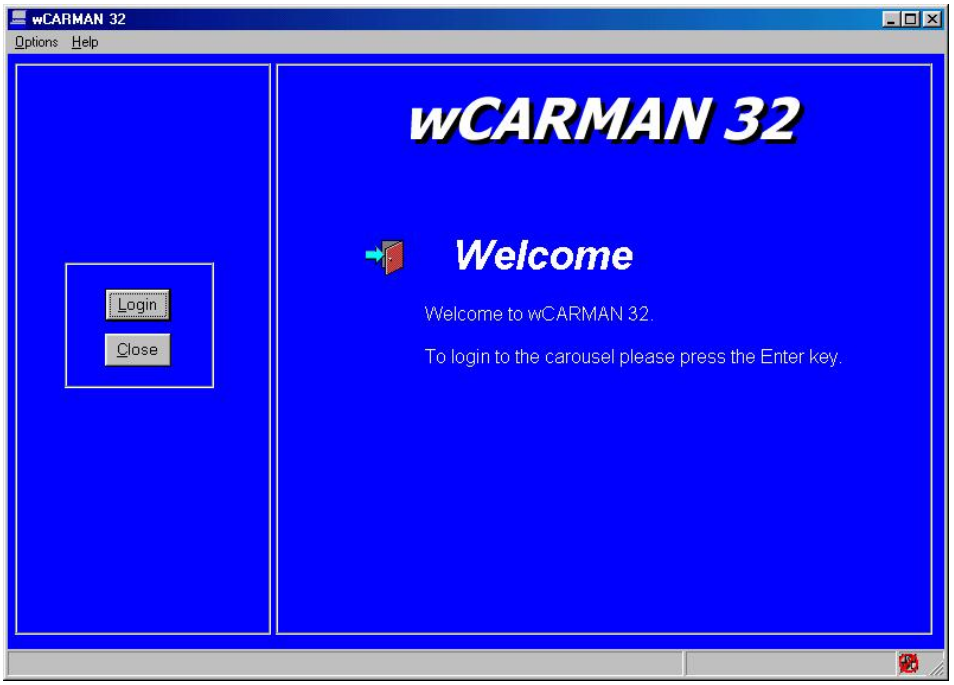
The Carousel can be turned ON or OFF using the Isolator Switch located on the right hand side of the machine and above the manual control panel.

After the machine has been switched ON, the PC can then be started. wCARMAN™ automatically runs when Windows is started, however, it can be run from the following shortcuts:

C:\Windows\Desktop\ - For Easy Desktop Access

C:\Windows\Start Menu\ - For Easy Start Menu Access

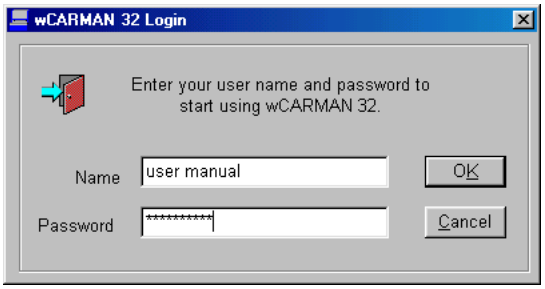
The Welcome screen is the first window seen in wCARMAN™. It has two functions; one is to LOGIN to wCARMAN™ and the other is to CLOSE wCARMAN™.



3.1 Logging in to wCARMAN™

When wCARMAN™ is first started, the Login button is highlighted, press **Enter** on the keyboard to Login or alternatively press **Alt** & **L**.

Type your user name in the Name box then **Tab** to the Password box and type your password then press **Enter**. The password and user names are not case sensitive so it makes no difference if you use capital letters or not.



If you type the incorrect user name or the incorrect password, the following error will appear.

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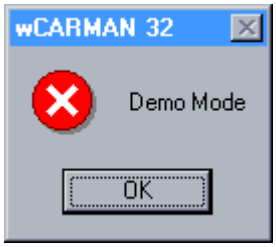
To clear this error, press Enter and you will return to the Login screen. As the error box states, try to Login again and if you do not get it right after a few attempts then contact your supervisor for assistance.

If the machine PC has not been able to communicate with the machine Programmable Logic Controller (PLC), the following error will appear:



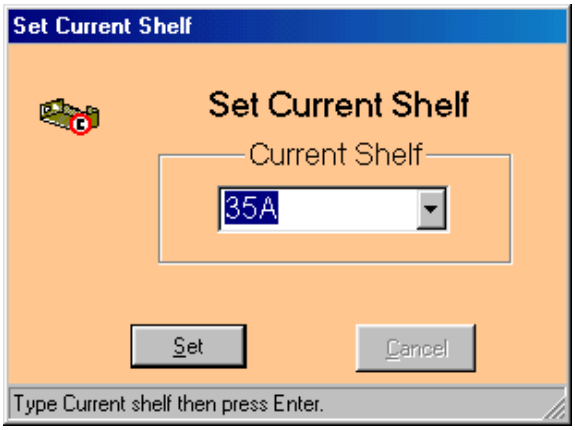
To clear this error, press **Enter** and the Main Menu will be displayed. You will need to Logout of wCARMAN™ and Login again. If this message is repeated, please contact your supervisor for assistance.

NOTE: IF WCARMAN™ IS USED IN DEMO MODE, THE MACHINE WILL NOT RETRIEVE SHELVES.

3.2 Set Current Shelf

NOTE: THIS FUNCTION IS NOT AVAILABLE IN DEMO MODE.

Each time you Login (or if you select this option from the Tools Menu) this screen will appear. If the shelf number displayed on this screen is different to the one seen at the machine access level you should change it so that it displays the current shelf number seen at the machine access level. This function can be used at any time if the machine count is not correct.



*NOTE: YOU CANNOT ESCAPE FROM THIS SCREEN YOU MUST PRESS THE **ENTER** KEY ON THE CORRECT SHELF NUMBER TO PROCEED.*

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You can change the current shelf by over-writing the incorrect shelf number with the correct one or selecting the correct shelf number from the pull down menu. When the correct shelf number is seen press **Enter**.

To access the pull down menu and see all the available shelves press **F4**. Use the **up(–) and down(↓) arrow keys** to highlight the correct shelf then press **Enter**.

Warning: If CURRENT SHELF is different to the ACTUAL SHELF at the machine access level, the machine will not move TO THE correct LOCATION.

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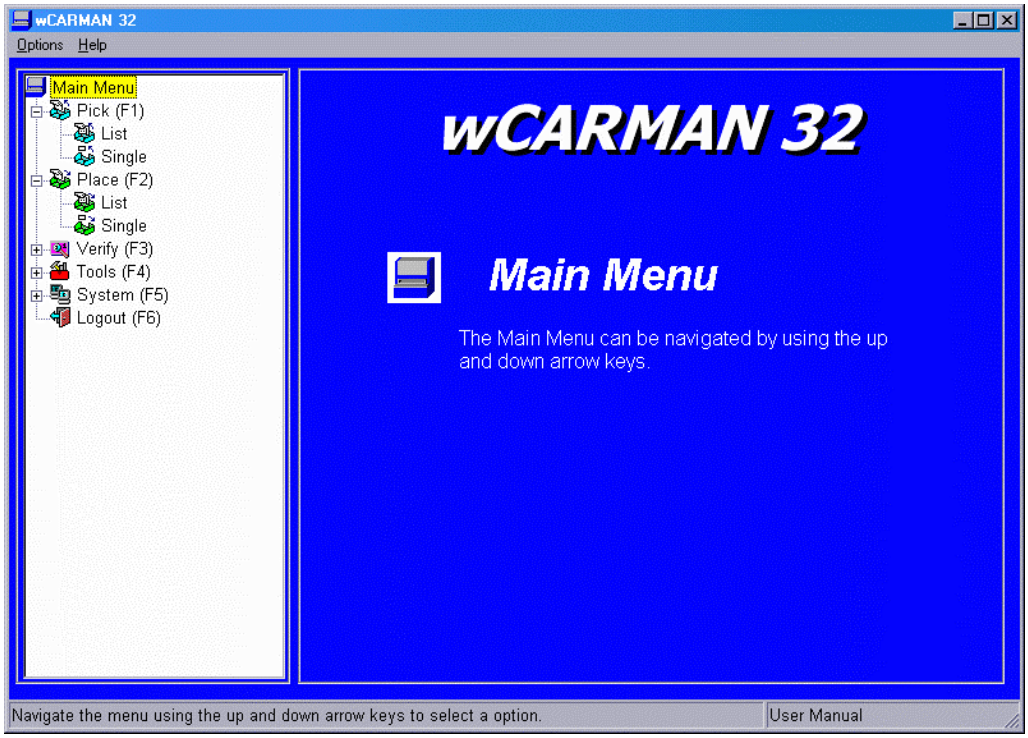
3.3 Getting around the Main Menu

The Main Menu is used to select the functions you wish to use in wCARMAN™. The Status Bar at the bottom of the form provides information about how each function can be initiated and also shows the current user name.

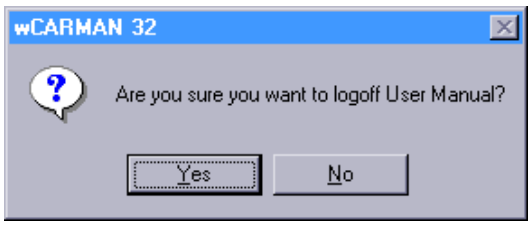
To navigate the Main Menu use the **up(–) and down(↓) arrow keys** to highlight a function then press the **Enter** key. To expand a menu, press the **right(→) arrow key** and to collapse a menu press the **left(←) arrow key**.

The function keys (**F1** – **F6**) can be used to move quickly from one main heading to another. It is also possible to select a function by pressing the alpha key that is the first letter of the word.



LOGOUT and CLOSE wCARMAN™
Select Logout (**F6**) from the Main Menu and then press **Enter**.

At the confirm message press **Enter**.



At the Welcome screen, press **Alt & C** for Close, or **Tab** to Close button and press **Enter**.

Press **Alt & Y** for Yes to confirm. Or **Tab** to the Yes button then press **Enter** to confirm.

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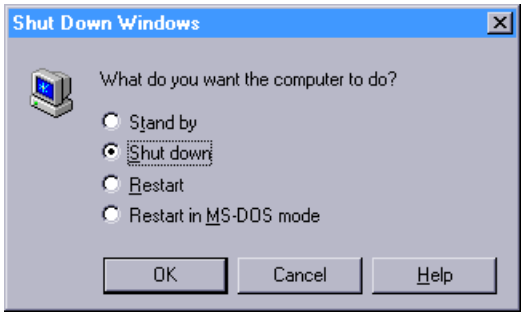
NOTE: IT IS IMPORTANT TO SHUT DOWN THE MACHINE PC IN AN ORDERLY FASHION. THIS MUST BE DONE BEFORE THE MACHINE ISOLATOR IS TURNED TO THE OFF POSITION. AN ORDERLY SHUT DOWN IS DONE BY FOLLOWING THE WINDOWS SHUTDOWN PROCEDURE NOTED BELOW:

After you have shut down wCARMAN™:

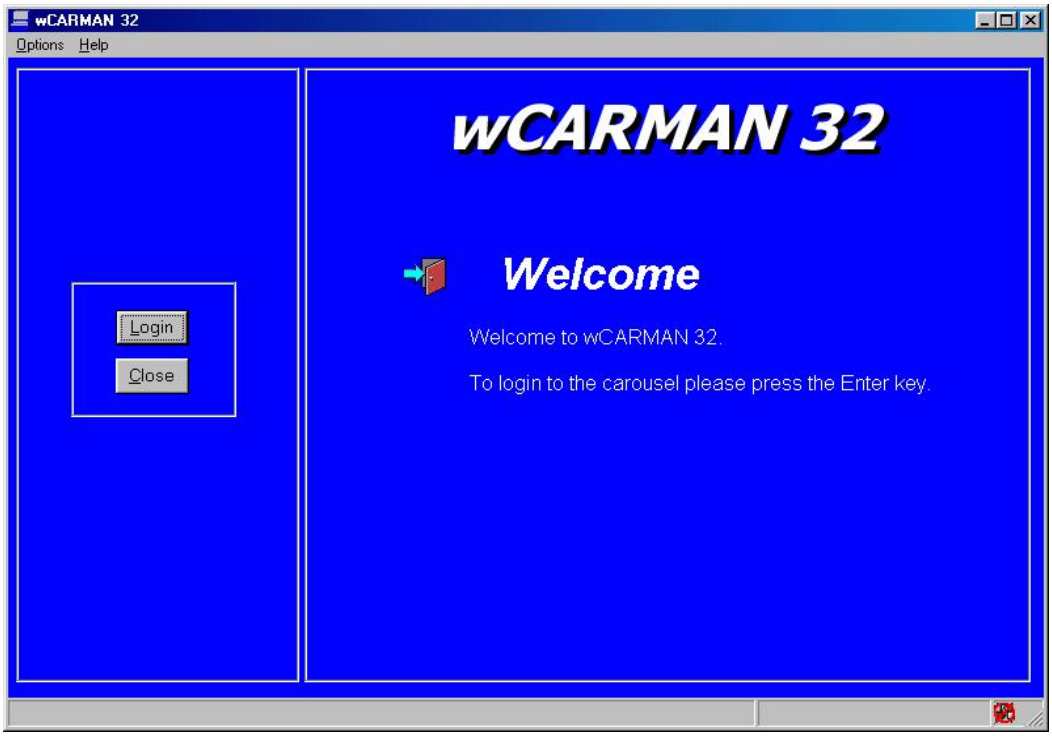


Press **Ctrl & Esc** to open the Windows Start Menu, then press **u.**

Make sure Shut down is selected and then press **Enter** to shut down Windows and the machine PC.

3.4 Dual Access

To change from Primary to Secondary Side and vice versa, log out of wCARMAN™ on the active side and proceed to the required side. Log in at the required side.



3.4.1 Carousel

On your Carousel Local Panel (located behind your monitor) there is an 'Access Selected' switch. Turn the switch to activate the required access i.e. Primary or Secondary. The switch will determine which access safety devices are to be observed. Once selected, log back into wCARMAN™ at the required access.

3.4.2 Shuttle

The Shuttle® accesses work independently. As such it is possible to use wCARMAN™ at each access consecutively.

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4 Pick Introduction

wCARMAN™ offers a variety of Bin Selection Modes (BSM) for retrieving parts from the machine. wCARMAN™ also offers a variety of Bin Allocation Modes (BAM) for storage of parts, which will be explained in the PLACE Section of this manual. The available modes for storage and retrieval are briefly explained below:

Bin Allocation Modes

When picking parts from static racking, RackMAN may respond differently i.e. present different information or questions, depending on the type of BAM selected. Each BAM is described briefly below:

- Fixed Single (Refer to Section 3.1)
  Each part number is Placed into a single location in the machine. When a part location becomes empty, the location is retained for that part.

- Dynamic (Refer to Section 3.2)
  Each part number is Placed into a new location in the machine. When a part location becomes empty, the location is freed for storage of another part.

- Fixed Multiple (Refer to Section 3.3)
  wCARMAN™ offers the operator a choice either to Place a part in to a new location or to an existing location for that part number. wCARMAN™ offers a choice when a part location becomes empty to either free the location or retain the location for that part.

Bin Selection Modes

Your system has been configured for picking of parts in one of the following ways:

- **First In First Out (FIFO)**
  wCARMAN™ will pick items from the oldest location. This mode is not valid for Fixed Single BAM.
- **User Selection**
  wCARMAN™ will pick items from the location selected by the user. This mode is not valid for Fixed Single BAM.
- **Closest Location**
  wCARMAN™ will pick items from the closest location you are currently at in the machine. This mode is not valid for Fixed Single BAM.
- **Fullest Location**
  wCARMAN™ will pick items from the location with the most amount of product stored at that location. This mode is not valid for Fixed Single BAM.
- **Satisfy Quantity**
  wCARMAN™ will pick items from the location that will only satisfy the full amount of that order. This mode is not valid for Fixed Single BAM.
- **Expiry Date**
  wCARMAN™ will pick items from the location that has products that are going to expire first. This mode is not valid for Fixed Single BAM.

NOTE: IF YOU ARE UNSURE OF YOUR SYSTEM TYPE PLEASE ASK YOUR SUPERVISOR

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Refer to the Sections noted below for each Pick mode:

Section	*Type*	*Description*
4.1	Fixed Single	Refer above
4.2	Dynamic	Refer above
4.3	Fixed Multi	Refer above

The sections above describe standard Pick operations. For alternatives, refer to the following sections:

4.4	Insufficient Pick Quantity	If there is insufficient Stock to Pick refer to this section for details.
4.5	Picking by Lot Number	If you are using Lot Numbers refer to this section for details.
7	Pick by List	To Pick By List refer to this section for details on selecting Lists.

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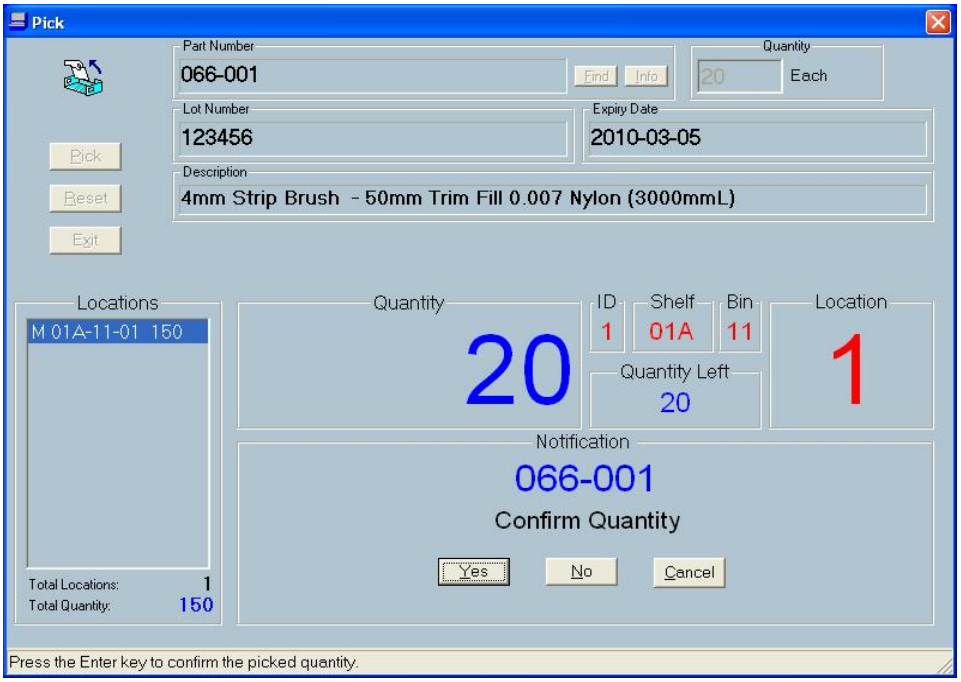
The **PICK** Screen – At A Glance



	Item	*Description*
1	Part Number Box	Displays the current found part number, Find button and Info button
2	Lot Number Box *	Displays the Lot Number. *This will only be displayed if it is selected in the Placing Configuration.
3	Expiry Date Box *	Displays the Expiry Date. *This will only be displayed if it is selected in the Placing Configuration.
4	Description Box	Displays the current parts description
5	Small Quantity Box	Displays the total quantity to Pick
6	Large Quantity Box	Shows the current quantity to Pick
7	Quantity Left	Displays the remaining quantity to Pick
8	List Identifier Box	Displays the List this Pick operation comes from
9	Locations Box	Displays the current part location(s) and quantities Displays total of locations and total of quantities
10	Shelf Box	Displays current shelf
11	Bin Box	Displays current bin
12	Location Box	Displays current location
13	Notification Box	Displays current message
14	Reset Box	Will clear the form
15	Exit Box	Will close the window
16	Colour	Blue

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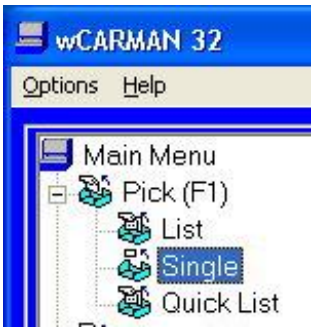
4.1 Pick Methods

The Pick form is available from the Main Menu. Use the ↑ and ↓ arrows or the mouse to move to the required menu item and press **Enter**:



- List
  Use this method to pick a range of items based on list files created locally (at the wCARMAN console) or by the host system.

- Single
  Use this method to pick / confirm one or two items directly at the wCARMAN console.

- Quick List
  Use this method to construct and then execute a pick list at the console. This is a quick method of picking multiple items from the machine where a host interface is not present.

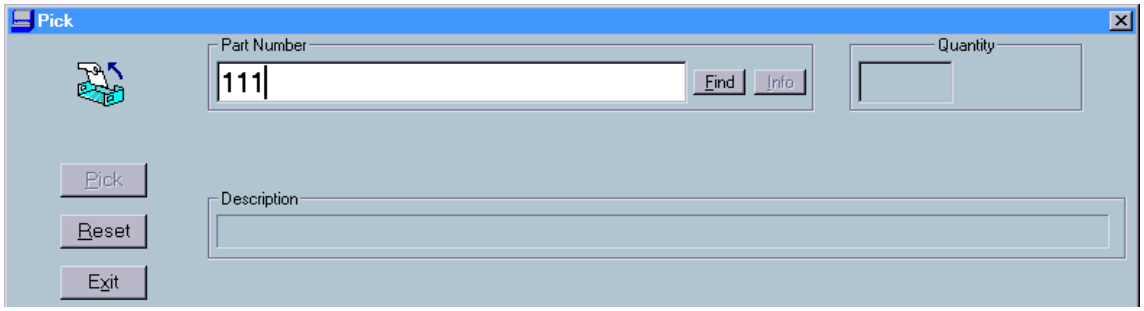
4.1.1 Pick \ List

Refer to Section 6 for details of how to select Pick lists. Once the list has been selected, refer to Section 3.1.2 for the pick dialogue.

4.1.2 Pick \ Single - Fixed Single BAM

This section relates only to Picking when using the Fixed Single BAM. Other methods are available from the Contents page. Each part is Picked from a single location in the machine. When the part location becomes empty, the location is retained for that part.

STEP 1 **Enter Part Number**
Type in, or Find the part number of the item you are going to Pick then press **Enter**.



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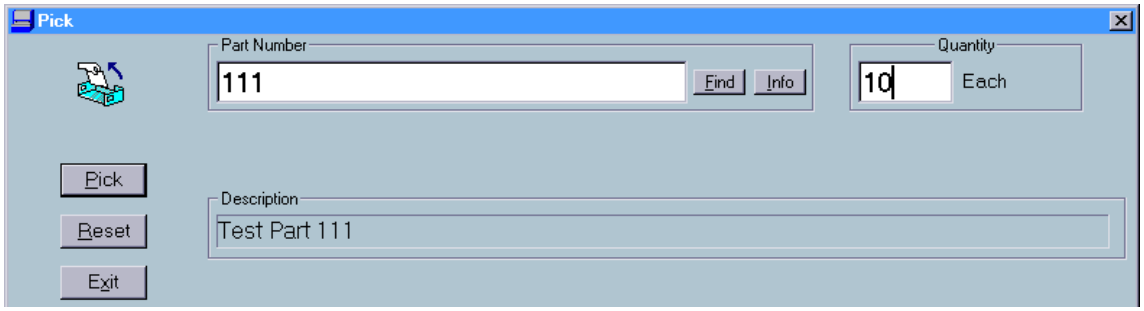
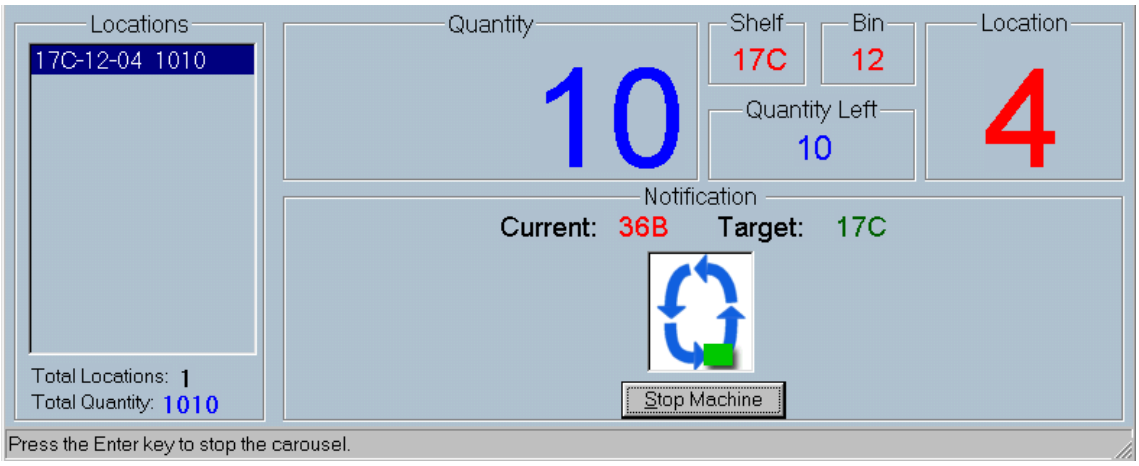
STEP 2 **Enter Quantity**
Type in the quantity that you want to Pick then press **Enter**.



The machine will then move to the part location as determined by the Bin Selection Mode (BSM)



STEP 3 **Count and Pick Parts**
As the machine moves to the required shelf, a lamp will come on, indicating which bin to Pick from. The required location in the bin is shown in large red text on the screen.

When the machine has finished rotating, count the parts as you Pick them from the bin.

STEP 4 **Confirm Quantity**
Confirm the Pick quantity by pressing **Enter** or press a remote confirmation button on the carousel bench. The quantity to confirm is shown in large blue text on the screen.

The Pick process is now complete.

If there is insufficient stock for you to Pick, refer to Section 3.4.

If the Pick empties a location proceed to **STEP 5**.

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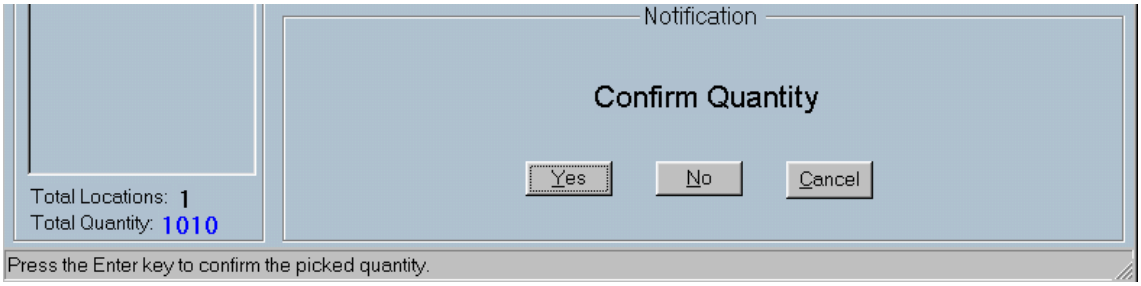
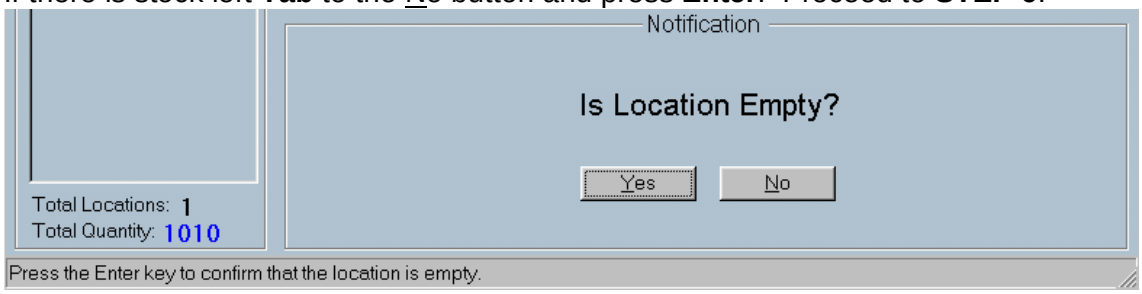


STEP 5 **Is Location Empty**

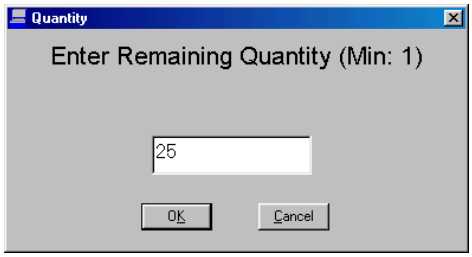
Confirm the location is empty by pressing **Enter** or press a remote confirmation button on the carousel bench.

If there is stock left **Tab** to the No button and press **Enter**. Proceed to **STEP 6**.



STEP 6 **Enter Remaining Quantity**

Type in the remaining quantity that is in the bin then press **Enter**.



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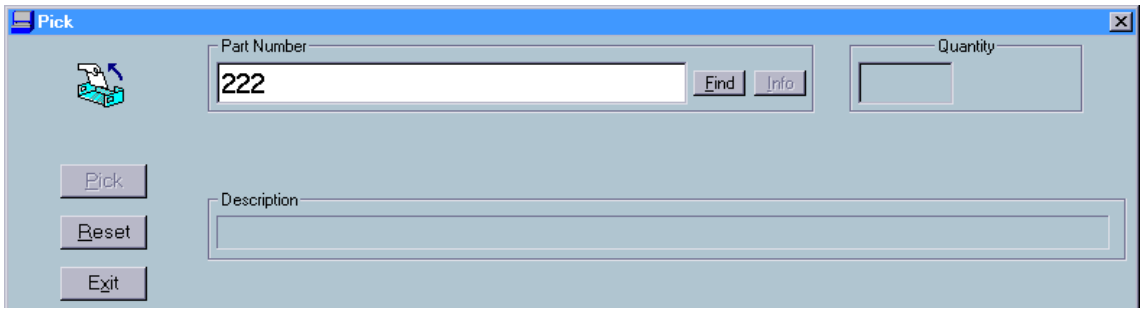
4.2 Picking - Dynamic BAM

This section relates only to Picking when using the Dynamic BAM. Other methods are available from the Contents page. Parts are picked from locations as required by the BSM. When a location is emptied, the location is freed up, to be used for storage of another part.

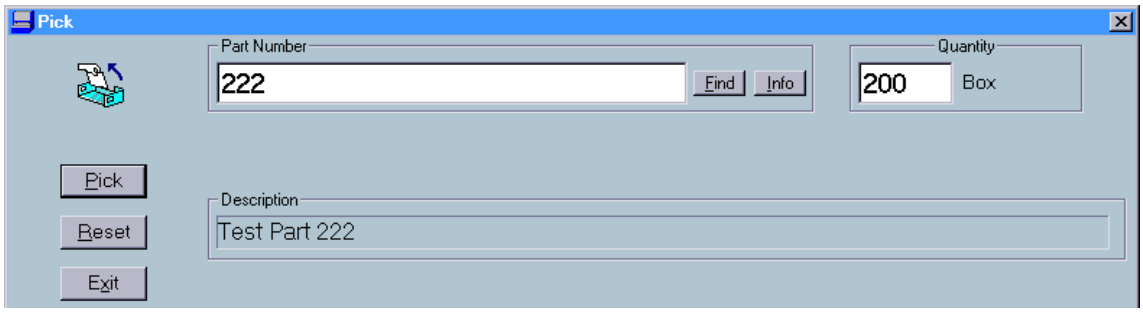
STEP 1 **Enter Part Number**

Type in, or Find the part number of the item you are going to Pick then press **Enter**.

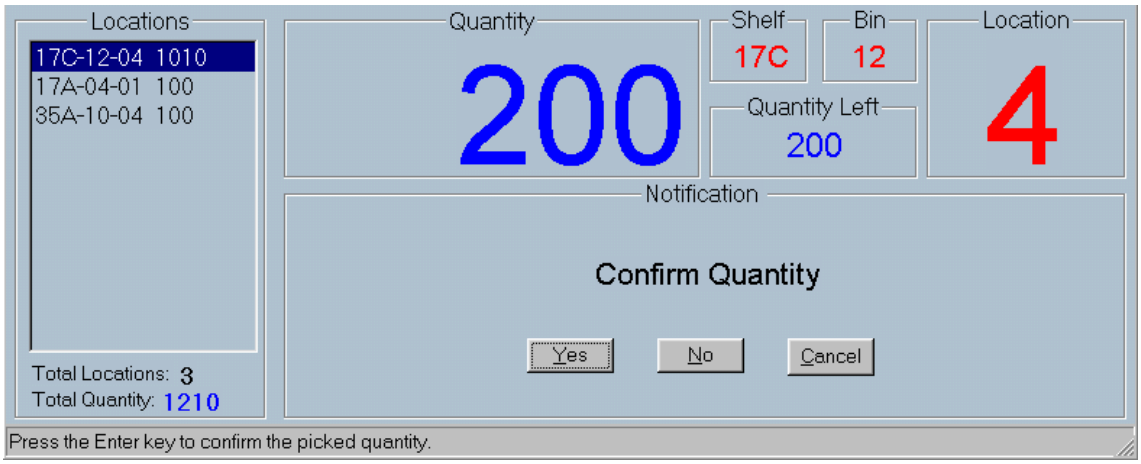


STEP 2 **Enter Quantity**

Type in the quantity that you want to Pick then press **Enter**.



The machine will then move to the part location as required by the BSM.



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STEP 3 **Count and Pick Parts**

As the machine moves to the required shelf, a lamp will come on, indicating which bin to Pick from. The required location in the bin is shown in large red text on the screen.

When the machine has finished rotating, count the parts as you Pick them from the bin.

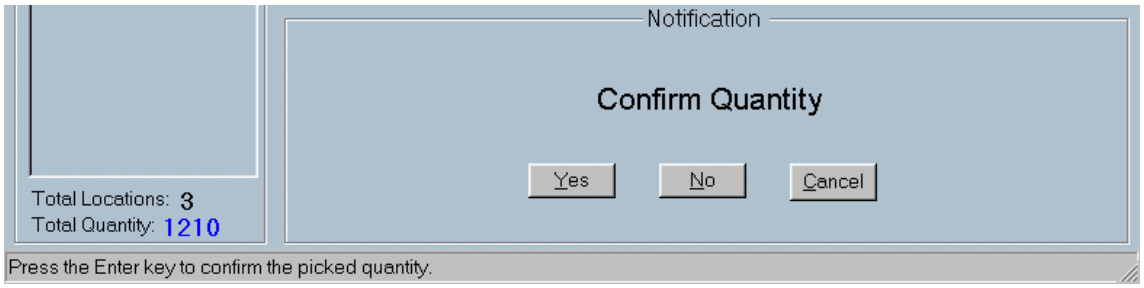
STEP 4 **Confirm Quantity**

Confirm the Pick quantity by pressing **Enter** or press a remote confirmation button on the carousel bench. The quantity to confirm is shown in large blue text on the screen.

The Pick process is now complete.

If there is insufficient stock for you to Pick, refer to Section 3.4.

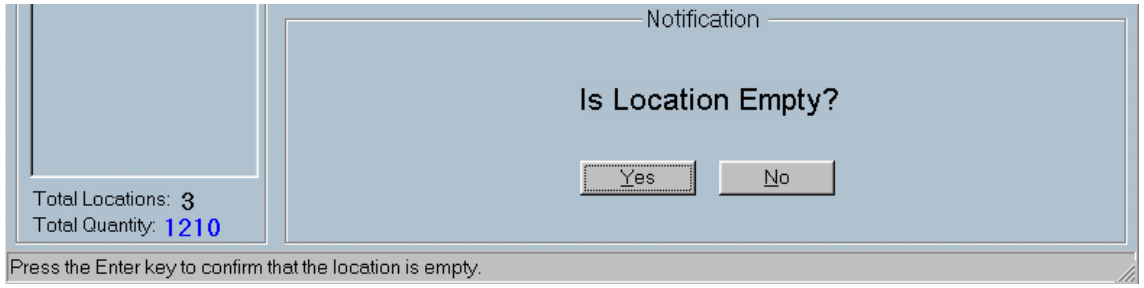
If the Pick operation empties a location and/or there is still a quantity left to Pick in another location, proceed to **STEP 5**.



STEP 5 **Is Location Empty**

Confirm the location is empty by pressing **Enter** or press a remote confirmation button on the carousel bench. Then if you still have a quantity left to Pick, return to **STEP 3**.

If there is stock left in the location, **Tab** to the No button and press **Enter**. Proceed to **STEP 6**.



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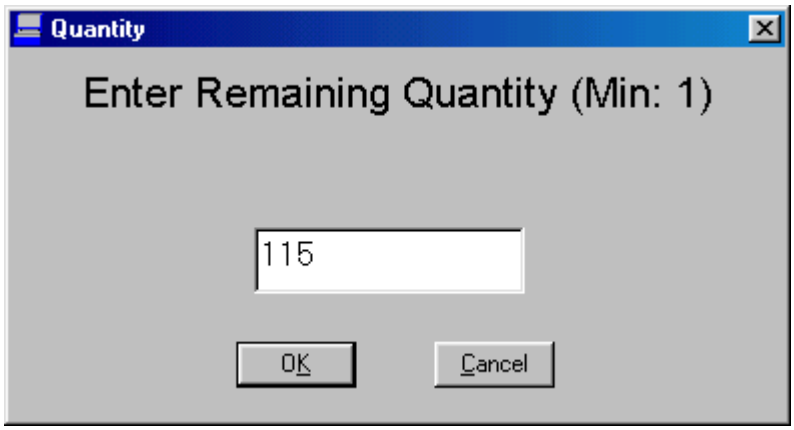
STEP 6 **Enter Remaining Quantity**
Type in the remaining quantity that is in the bin then press **Enter**.

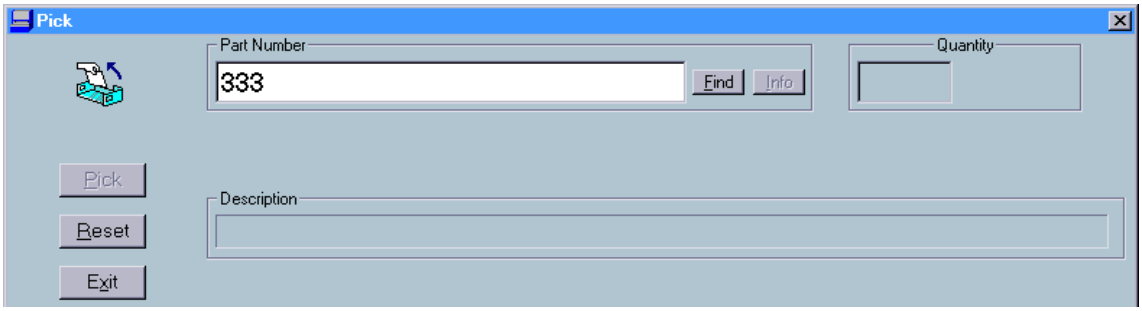


If the location now contains adequate quantity to satisfy the Pick, you will be returned to **STEP 3** above.

4.3 Picking - Fixed Multiple BAM

This section relates only to Picking when using the Fixed Multiple BAM. Other methods are available from the Contents page. Parts are Picked from locations as required by the BSM. When a location is emptied, the operator can select to retain the location or free up the location to be used for storage of another part.

STEP 1 **Enter Part Number**
Type in, or Find the part number of the item you are going to Pick then press **Enter**.



STEP 2 **Enter Quantity**

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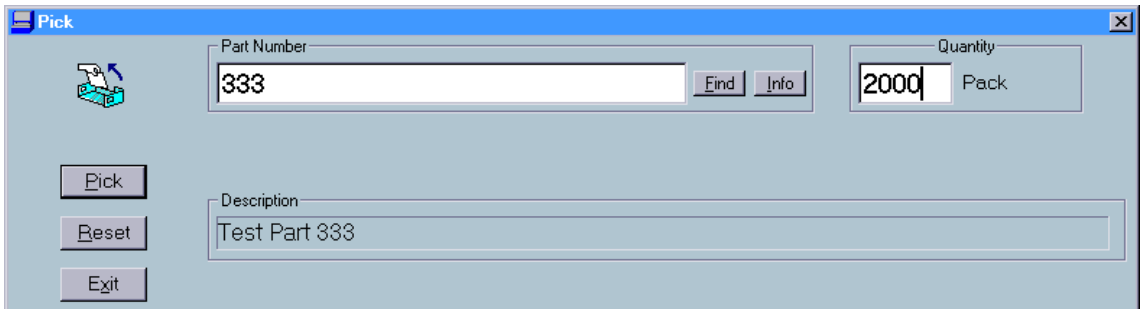
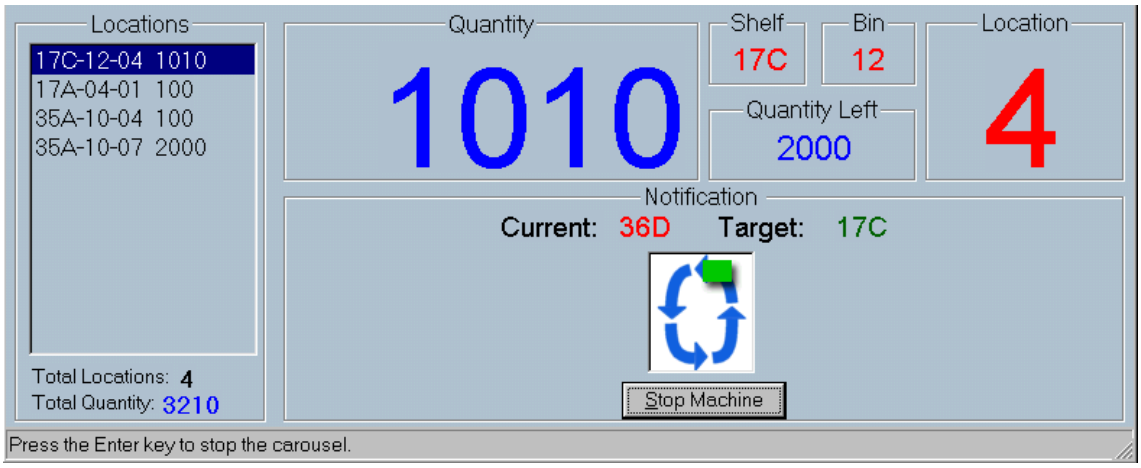


Type in the quantity that you want to Pick then press **Enter**

The machine will then move to the part location as required by the BSM.



STEP 3 **Count and Pick Parts**

As the machine moves to the required shelf, a lamp will come on, indicating which bin to Place from. The required location in the bin is shown in large red text on the screen.

When the machine has finished rotating, count the parts as you Pick them from the bin.

STEP 4 **Confirm Quantity**

Confirm the Pick quantity by pressing **Enter** or press a remote confirmation button on the carousel bench. The quantity to confirm is shown in large blue text on the screen.

The Pick process is now complete.

If there is insufficient stock for you to Pick, refer to Section 3.4.

If the Pick operation empties a location and/or there is still a quantity left to Pick in another location, proceed to **STEP 5**.

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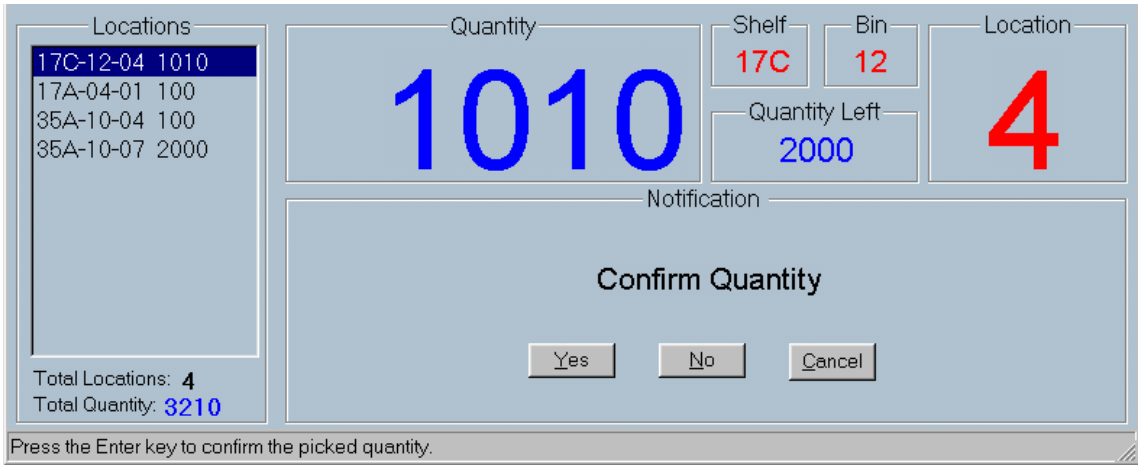
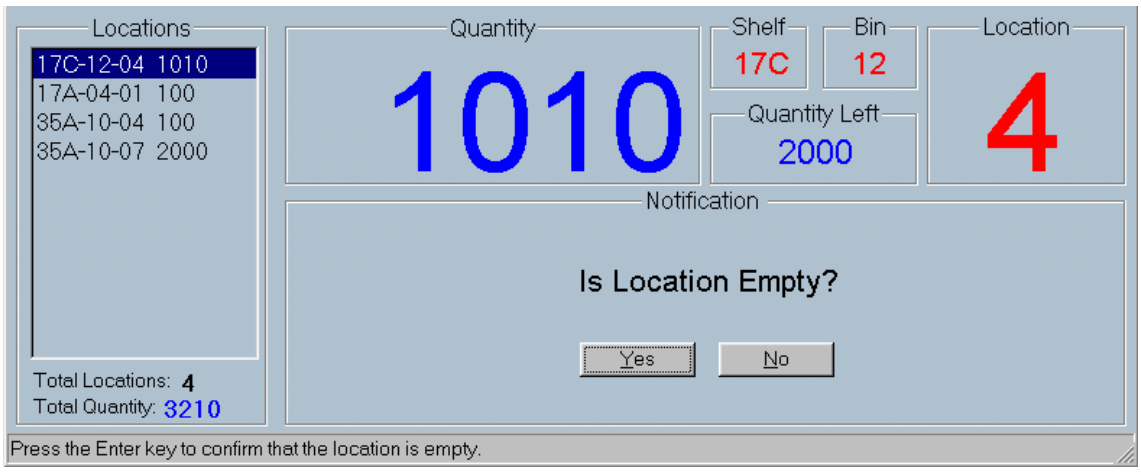


STEP 5 Is Location Empty?
Confirm the location is Empty by pressing **Enter** or press a remote confirmation button on the carousel bench. Proceed to **STEP 6**.

If there is stock left in the location, **Tab** to the No button and press **Enter**. Proceed to **STEP 7**.



STEP 6 **Keep this Location?**
The location can remain allocated to the part number or be freed up for storage of another part.

If Yes The cursor defaults to the Yes button so press **Enter** or a remote confirmation button on the carousel bench. The location will remain allocated to that Part Number.

If No **Tab** to the No button, then press **Enter**. The location will be freed up.

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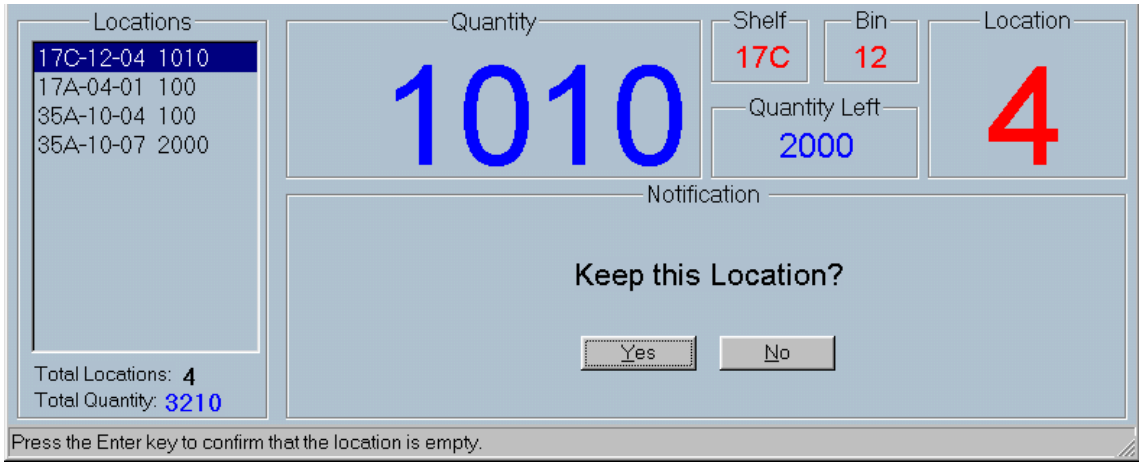
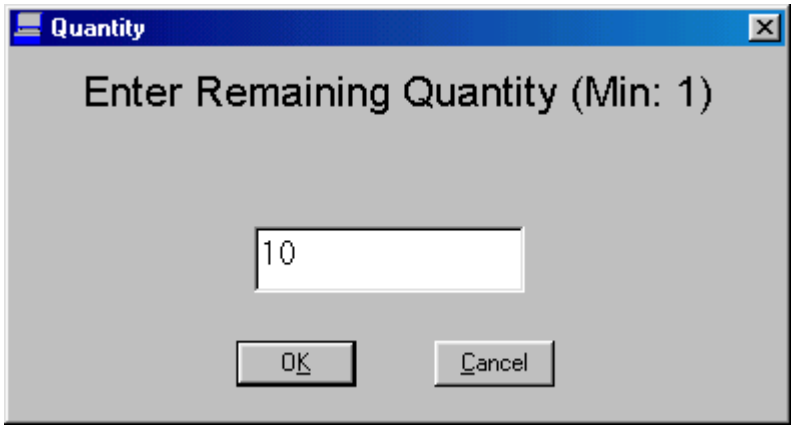


STEP 7 **Enter Remaining Quantity**

Type in the remaining quantity that is in the bin then press **Enter**.



If the location now contains adequate quantity to satisfy the Pick, you will be returned to **STEP 3** above.

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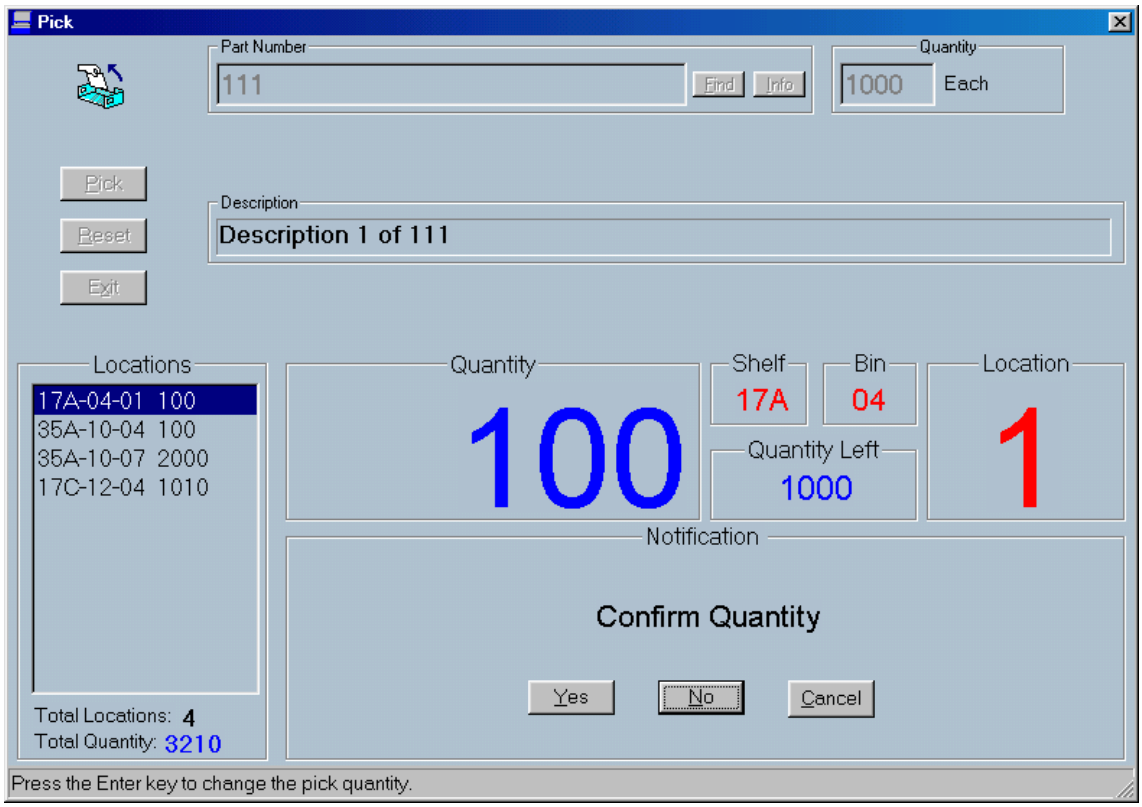
4.4 Insufficient Pick Quantity

STEP 1 **No to Confirm Quantity**

If you need to change the total pick quantity or there is insufficient stock in the location, **Tab** to the No button and then press **Enter**.

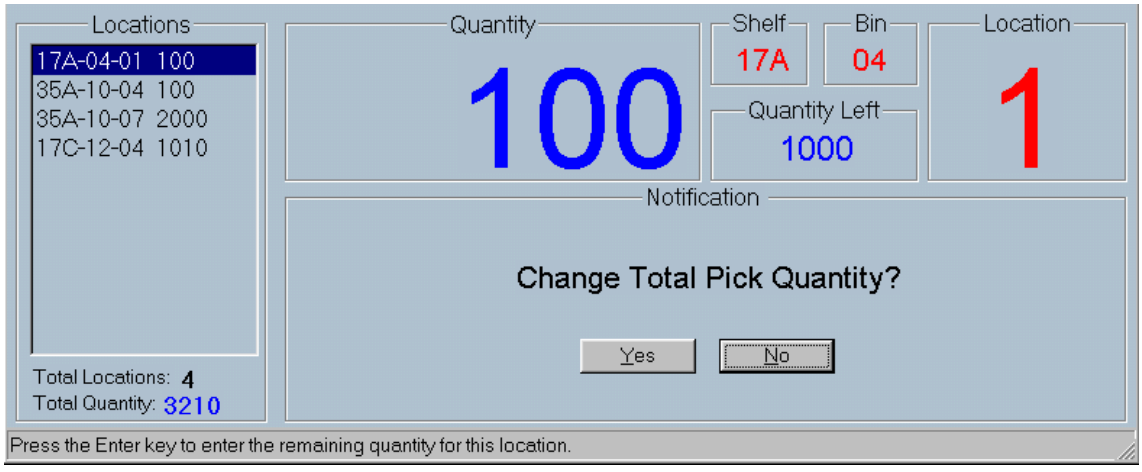


Go to STEP 2 if there is insufficient stock in the location. Go to STEP 3 if you need to change the total pick quantity.

STEP 2 **No to Change Total Pick Quantity?**

To change the Location Quantity, press **Tab** once, then press **Enter.**

To change the Total Quantity proceed with **STEP 4.**



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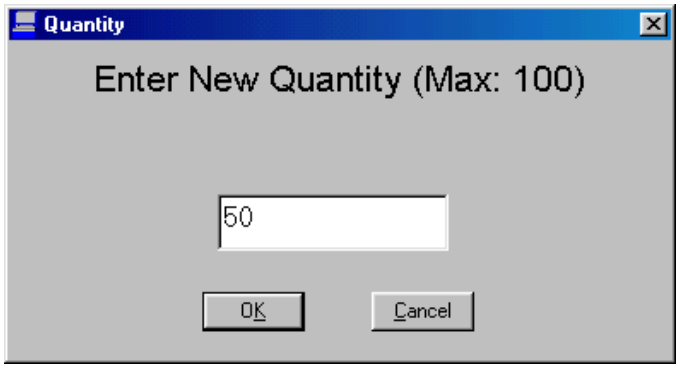
STEP 3 **Enter New Location Quantity**
Type in the available quantity and press **Enter.**

Return to **STEP 4** in your Pick Process.

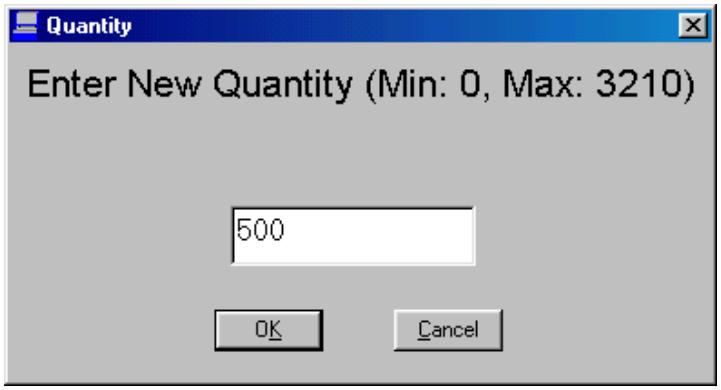


STEP 4 **Yes to Change Total Pick Quantity?**
To change the Total Quantity press **Enter**

STEP 5 **Enter New Quantity**
Type in the available quantity and press **Enter.**

Chose the location and press **Enter.**

Return to **STEP 4** in your Pick Process.



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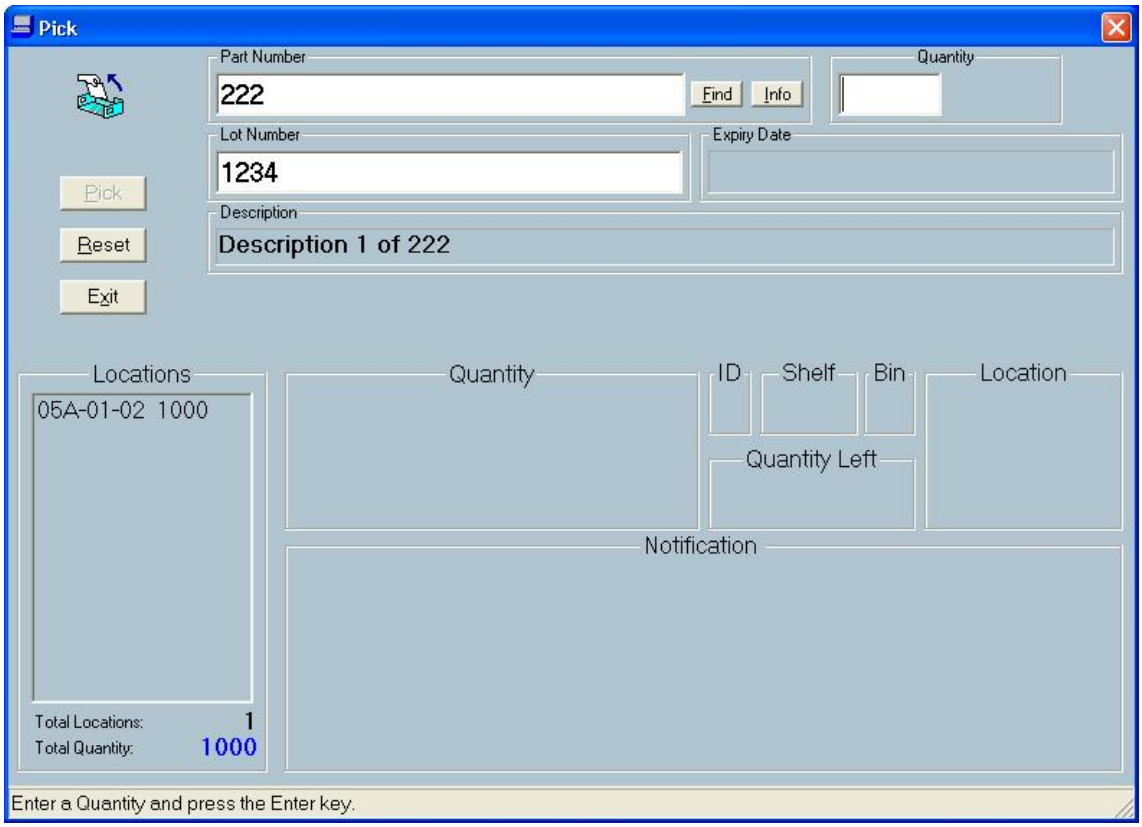
4.5 Picking By Lot Number

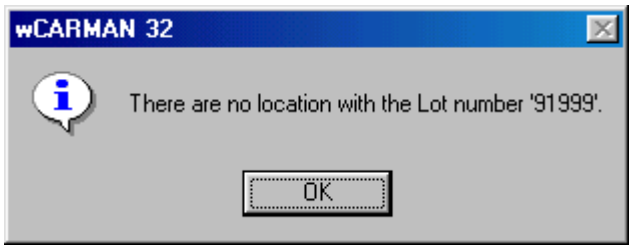
At **STEP 1** in your Pick process (enter a Part Number), press the **Enter** key once to move the cursor to the Lot Number field.

Enter a Lot Number and press the **Enter** key once. Lot numbers will have been allocated to parts during the PLACE operation.

If you want to enter the Lot Number first, press the **Tab** key twice and enter the Lot Number. wCARMAN™ will search for the Part Number you allocated to this Lot Number and will automatically display that Part Number.



If no match can be found for the Lot Number you have entered, the following message will be displayed:



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5 Place Introduction

wCARMAN™ offers a variety of Bin Allocation Methods (BAM) for storage of parts into your machine. Your system has been configured in one of the ways described below. Please refer to the section that relates to your system type for detailed instructions on the standard placing process.

NOTE: IF YOU ARE UNSURE OF YOUR SYSTEM TYPE, PLEASE ASK YOUR SUPERVISOR

Section	*Type*	*Description*
4.1	Fixed Single	• Each part number is Placed into a single location in the machine. • When a part location becomes empty, the location is retained for that part.
4.2	Dynamic	• Each part number is Placed into a new location in the machine. • When a part location becomes empty, the location is freed for storage of another part.
4.3	Fixed Multi	• wCARMAN™ offers the operator a choice either to Place a part in to a new location or to an existing location for that part number. • wCARMAN™ offers a choice when a part location becomes empty to either free the location or retain the location for that part.

The sections above describe standard Place operations For alternatives when Placing, refer to the following sections:

4.4	Change Place Quantity	• When placing parts you may have a quantity discrepancy, wCARMAN™ easily allows you to change the quantity you are placing.
4.5	Split Placing	• When placing parts to a bin that already has stock, you may not be able to fit all the stock in the bin. You can easily Split the Place over multiple locations. • *THIS OPTION IS NOT AVAILABLE WHEN USING FIXED SINGLE.*
4.6	Select Location Manually	This section provides detailed instruction on selecting a location manually. In the examples that follow, the location selection is set to automatic NOTE: For the initial loading of your machine, the process is always set to manual (refer to Section 1, Page 1).
4.7	Return to Stock	The Return to Stock option is used if you received parts back into the machine for credit. When parts are Placed using Return to Stock, the location is given a time stamp which marks the location as the oldest for that part. *NOTE: THIS OPTION IS NOT AVAILABLE WHEN USING FIXED SINGLE* .
4.8	Place with Lot Number	Placing by Lot Number allows Sub Grouping among parts. This section provides detailed instructions on Placing when using Lot Numbers.
6	Place by List	Refer to this section for details on selecting Place Lists.

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THE PLACE SCREEN – AT A GLANCE

	Item	*Description*
1	Part Number Box	Displays the current found part number, Find button and Info button
2	Lot Number Box *	Displays the Lot Number. *This will only be displayed if it is selected in the Placing Configuration form.
3	Expiry Date Box *	Displays the Expiry Date. *This will only be displayed if it is selected in the Placing Configuration form.
4	Description Box	Displays the current parts description
5	Small Quantity Box	Displays the total quantity to Place
6	Large Quantity Box	Shows the current quantity to Place
7	Quantity Left	Displays the remaining quantity to Place
8	List Identifier Box	Displays the List this Place operation comes from
9	Locations Box	Displays the current part location(s) and their quantities Displays total of locations and total of quantities
10	Shelf Box	Displays current shelf
11	Bin Box	Displays current bin
12	Location Box	Displays current location
13	Notification Box	Displays current message
14	Reset Box	Will clear the form
15	Exit Box	Will close the window
16	Colour	Green

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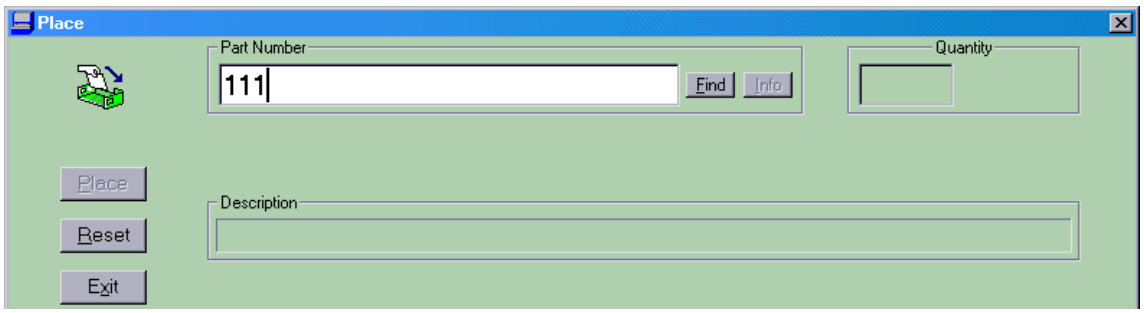
5.1 Placing - Fixed Single BAM

This section relates only to Fixed Single Placing. Other methods are available from the Contents page. Each part number is Placed into a single location in the machine. When a part location becomes empty, the location is retained for that part.

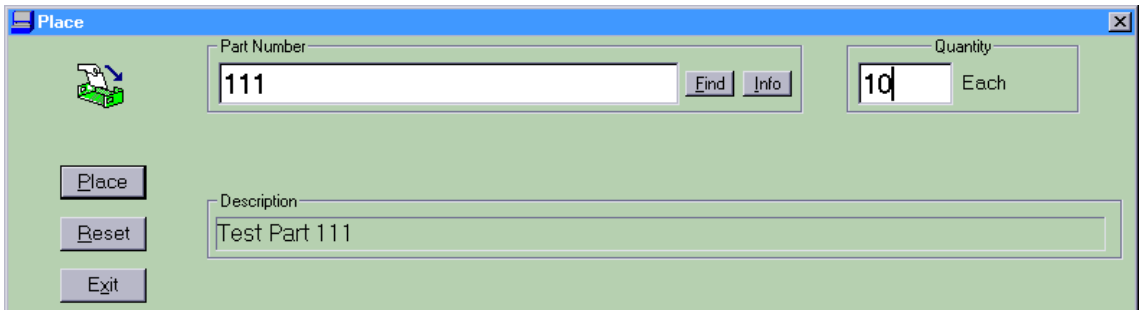
STEP 1 **Enter Part Number**

Type in, or Find the part number of the item you are going to Place then press **Enter**.



STEP 2 **Enter Quantity**

Type in the quantity that you want to Place then press **Enter**.

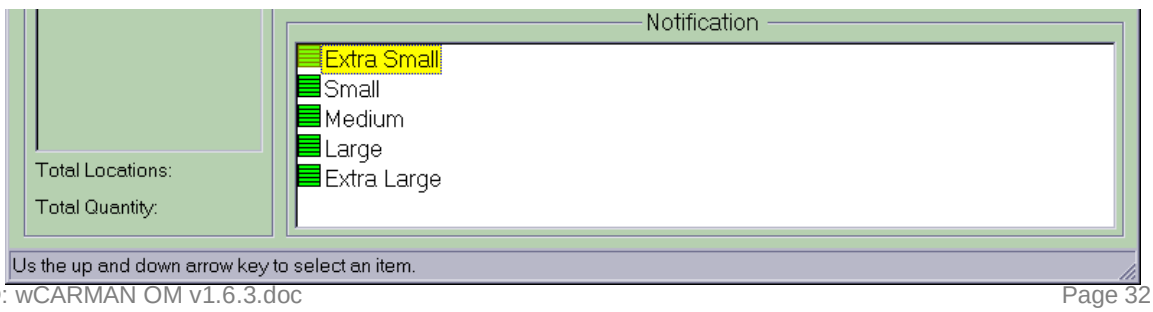


To Place items that do not have a location proceed to **STEP 3**.

Or, to Place items that already have a location proceed to **STEP 3A**.

STEP 3 **Choose Bin Size**

The available bin sizes will then be displayed. Choose the size of the bin you wish to Place to by using the **up(–) and down(↓) arrow keys** to highlight the bin size you require and then press **Enter**. To optimise the storage in the machine the bin size should be able to hold the normal stock on hand for each part.



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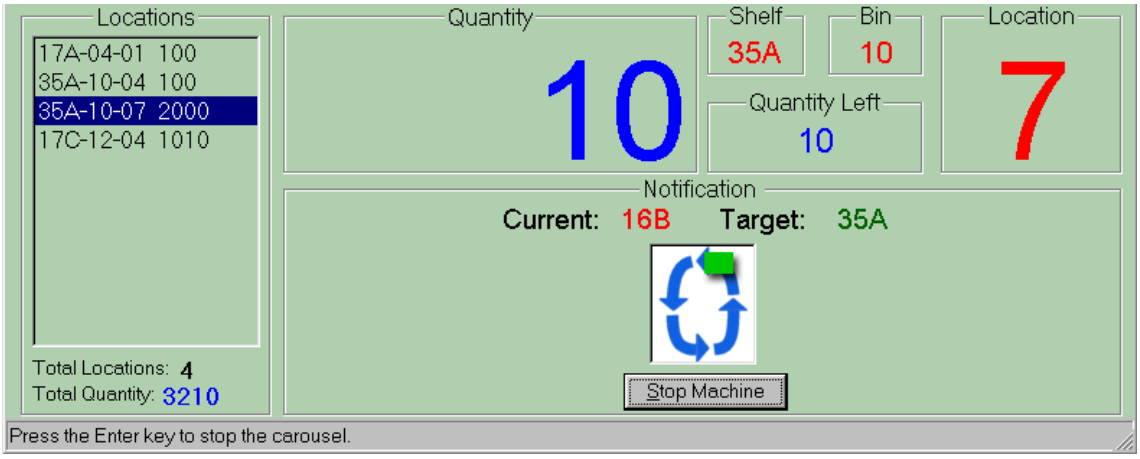
The machine will then move to the closest free location of your chosen size.

If you are selecting locations manually please refer to Section 4.6.



STEP 4 **Count and Place Parts**

As the machine moves to the required shelf, a lamp will come on, indicating which bin to Place to. The required location in the bin is shown in large red text on the screen.

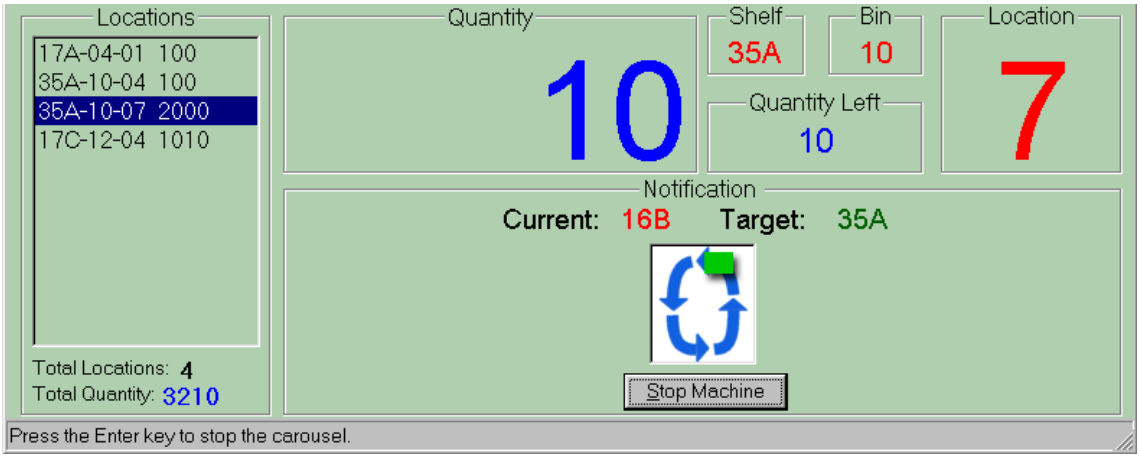
When the machine has finished rotating, count the parts as you Place the parts away into the bin.

STEP 5 **Confirm Quantity**

Confirm the Placed quantity by pressing **Enter** or press a remote confirmation button on the carousel bench. The quantity to confirm is shown in large blue text on the screen.

The Place process is now complete.

If you need to change the quantity, refer to Section 4.4.



After a part is placed in the machine wCARMAN™ will always remember the location details for that part. If you Place a part that already has a location, wCARMAN™ will automatically move to the known location. wCARMAN™ will ask the question “Is Location Large Enough”. Proceed to **STEP 3A**.

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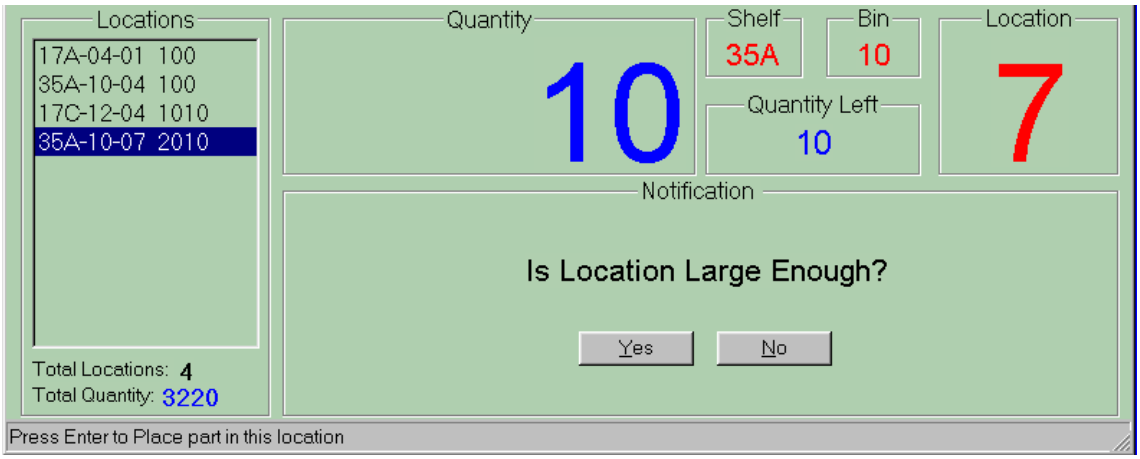
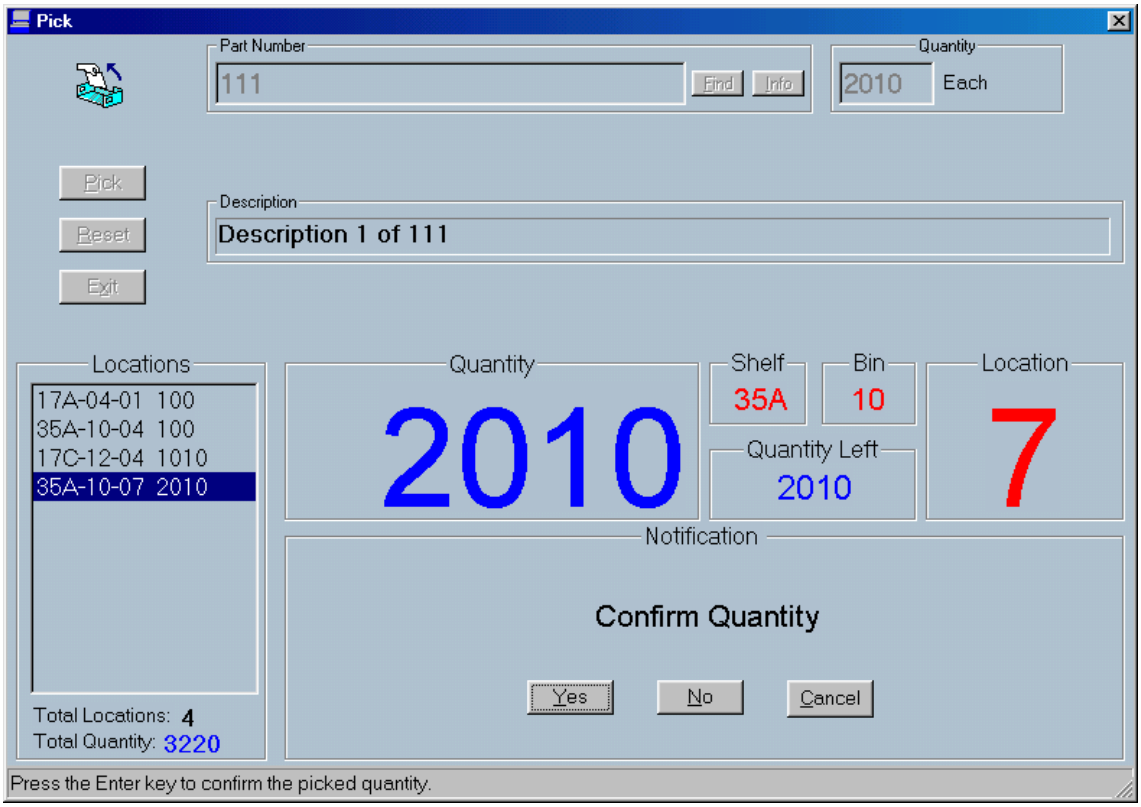
STEP 3A **Is Location Large Enough?**
Press **Enter** or a remote confirmation button on the carousel bench to confirm Yes if the location is large enough. Return to **STEP 4**.

If the location is not large enough to Place the required quantity, **Tab** to the No button and then press **Enter**. Proceed to **STEP 3B**.



STEP 3B **Confirm Pick Quantity**
Pick the stock out of the bin and confirm the Picked quantity by pressing **Enter** or press a remote confirmation button on the carousel bench. The quantity to confirm is shown in large blue text on the screen. Confirm the Pick quantity even if there is stock left in the bin and proceed to **STEP 3C**.

If the actual stock quantity is less than the quantity shown on the screen, then **Tab** to the No button and press **Enter**. Proceed to **STEP 3D**.



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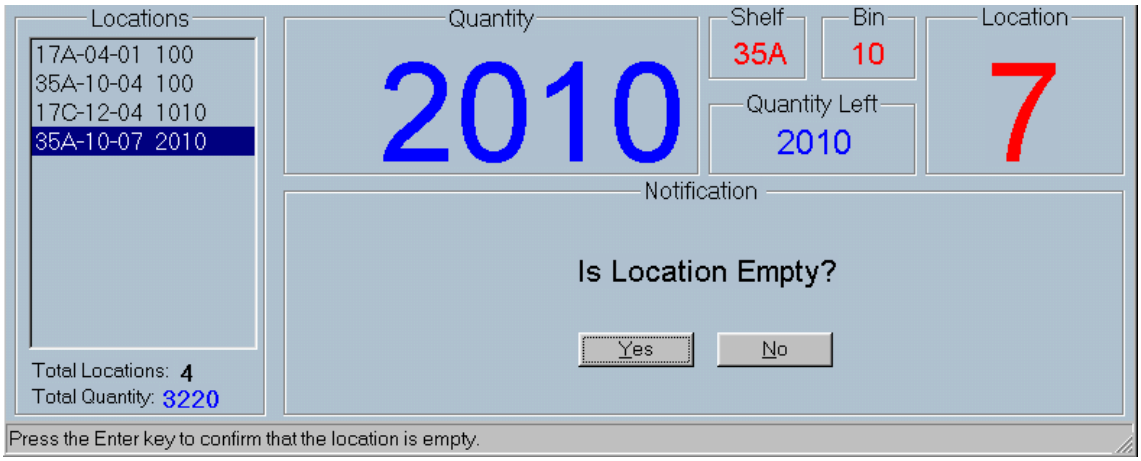
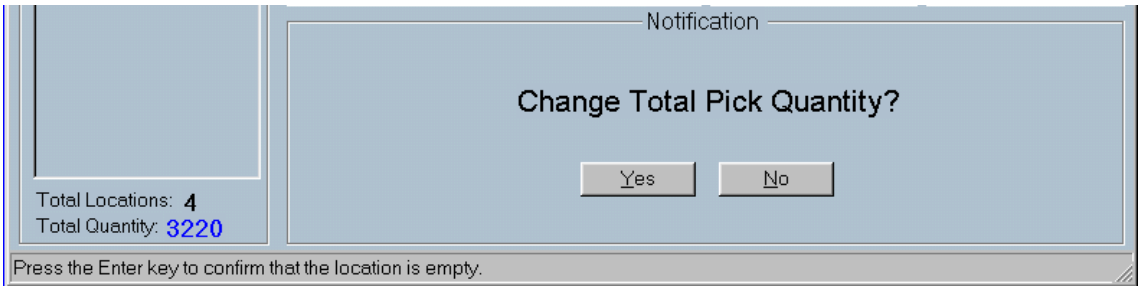
STEP 3C **Confirm Empty Location**
Confirm the location is empty by pressing **Enter** or press a remote confirmation button on the carousel bench. Return to **STEP 3**.

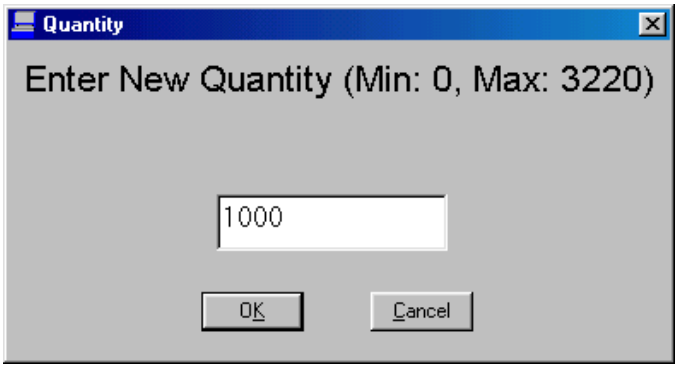
If the location is not empty, Tab to the No button and press Enter. Proceed to STEP 3E.



STEP 3D **Enter Available Quantity**
Tab to the Yes button and press **Enter.**



Type in the quantity that is available to Pick then press **Enter**. Return to **STEP 3B**.



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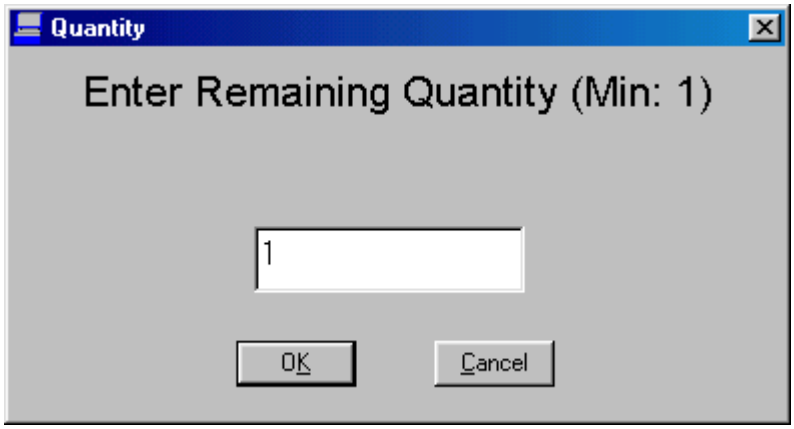
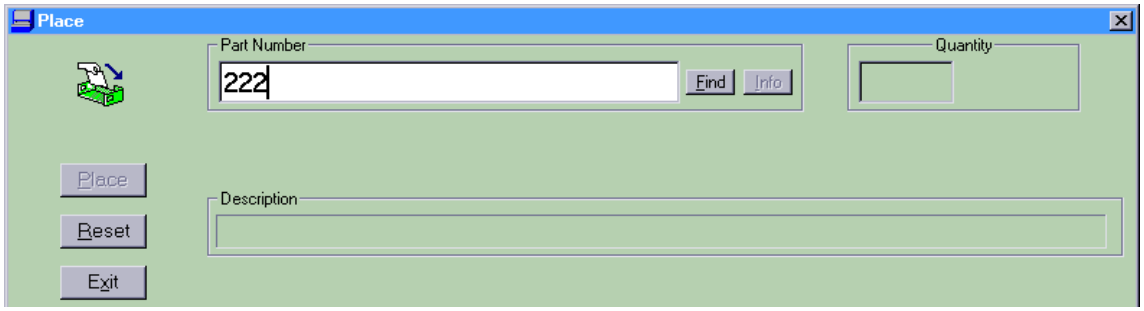
STEP 3E **Enter Remaining Quantity**
Type in the remaining quantity that is in the bin then press **Enter**.
Return to **STEP 3B**.



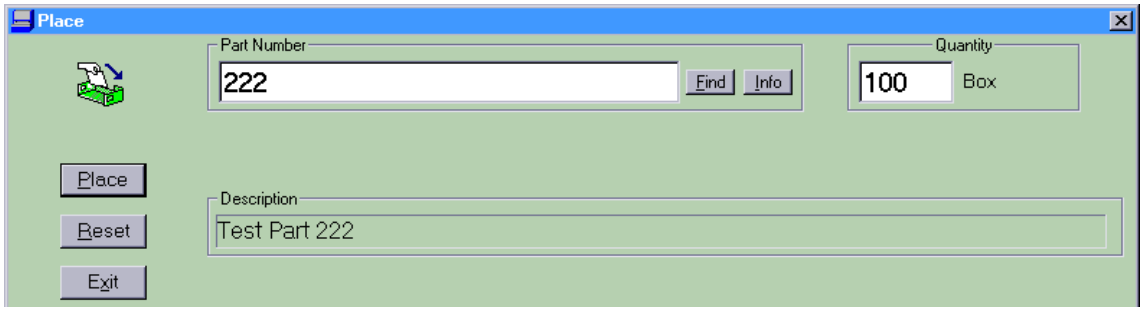
5.2 Placing - Dynamic BAM

This section relates only to Dynamic Placing. Other methods are available from the Contents page. Each part number is Placed into a new location in the machine. When a location is emptied, the location is freed up, to be used for storage of another part.

STEP 1 **Enter Part Number**
Type in, or Find the part number of the item you are going to Place then press **Enter**.



STEP 2 **Enter Quantity**
Type in the quantity that you want to Place then press **Enter**.



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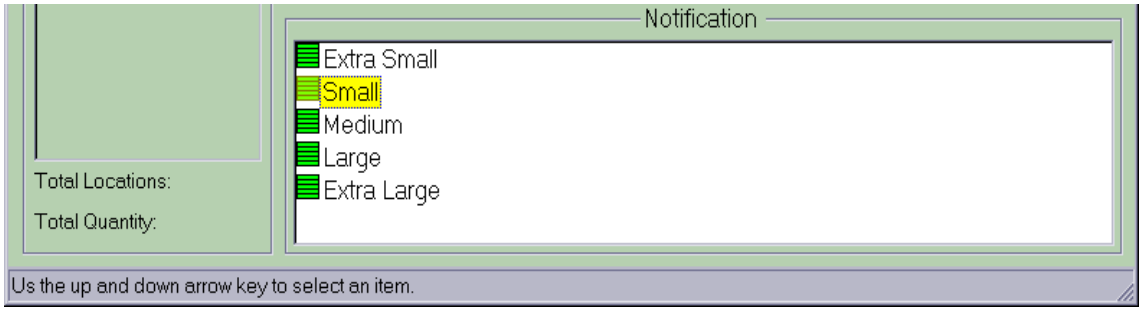
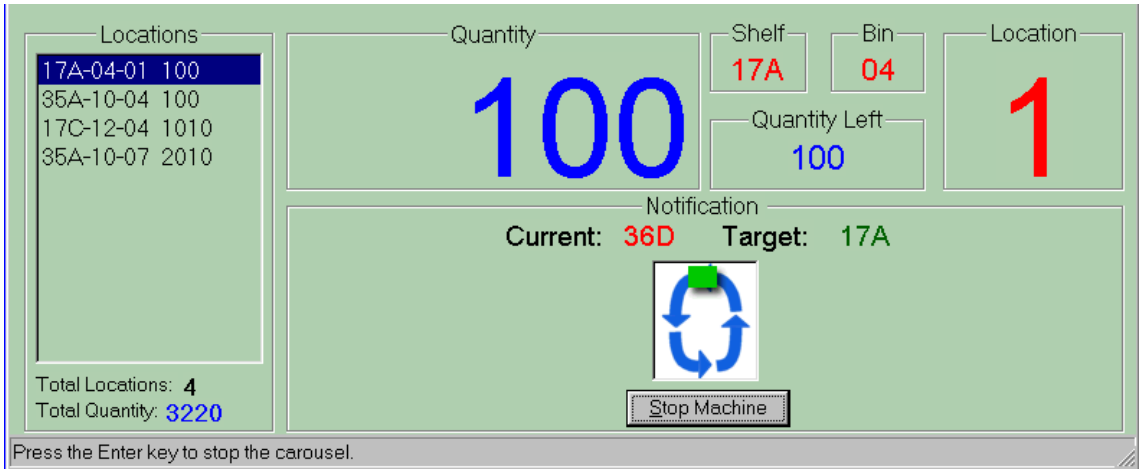
STEP 3 **Choose Bin Size**

The available bin sizes will then be displayed. Choose the size of the bin you wish to Place to by using the **up(–) and down(↓) arrow keys** to highlight the bin size you require and then press **Enter**. To optimise the storage in the machine the bin size should be just adequate for the size of each individual Place operation.



The machine will then move to the closest free location of your chosen size.

If you are selecting locations manually please refer to Section 4.6.



STEP 4 **Count and Place Parts**

As the machine moves to the required shelf, a lamp will come on, indicating which bin to Place to. The required location in the bin is shown in large red text on the screen.

When the machine has finished rotating, count the parts as you Place the parts away into the bin.

STEP 5 **Confirm Quantity**

Confirm the Placed quantity by pressing **Enter** or press a remote confirmation button on the carousel bench. The quantity to confirm is shown in large blue text on the screen.

The Place process is now complete.

If you need to change the quantity, refer to Section 4.4.

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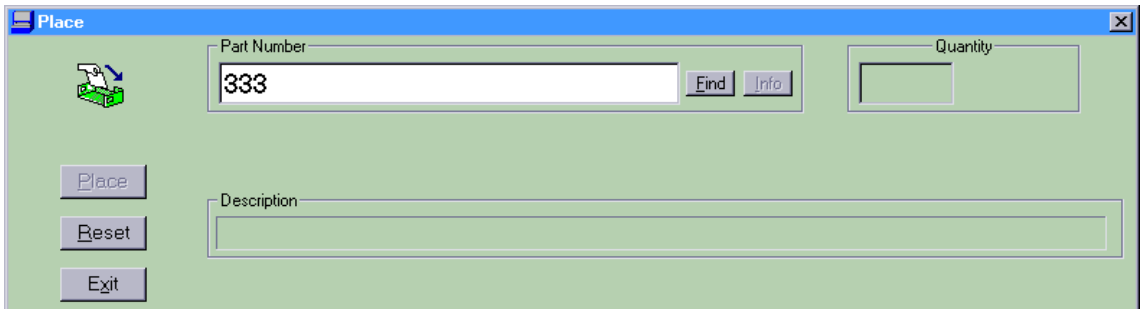
For your information, next time you Place that part away (or any other part that has already been Placed) wCARMAN™ will show all the locations that the part has been Placed to and their quantities in the Locations box. Each location will be listed in order of oldest to newest and a total quantity for all locations is shown.

5.3 Placing - Fixed Multi BAM

This section relates only to Fixed Multi Placing. Other methods are available from the Contents page. wCARMAN™ offers the operator a choice either to Place a part in to a new location or to an existing location for that part number. wCARMAN™ offers a choice when a part location becomes empty to retain the location or free up the location to be used for storage of another part.

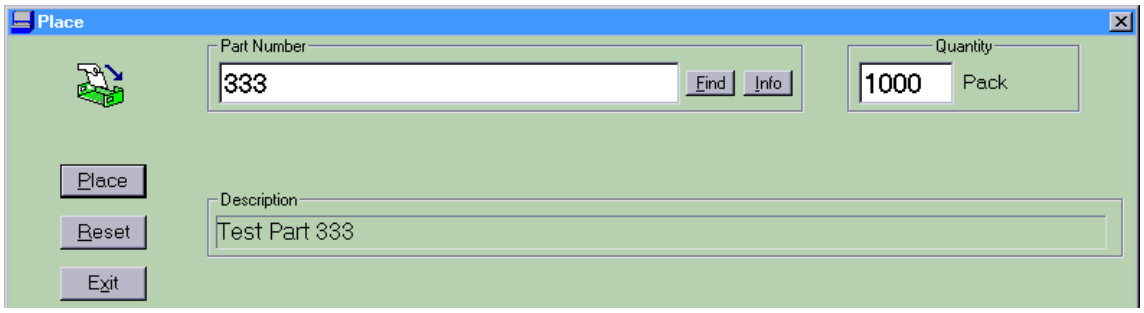
STEP 1 **Enter Part Number**

Type in, or Find the part number of the item you are going to Place then press **Enter**.



STEP 2 **Enter Quantity**

Type in the quantity that you want to Place then press **Enter**.



To Place items that do not have a location proceed to **STEP 3**.

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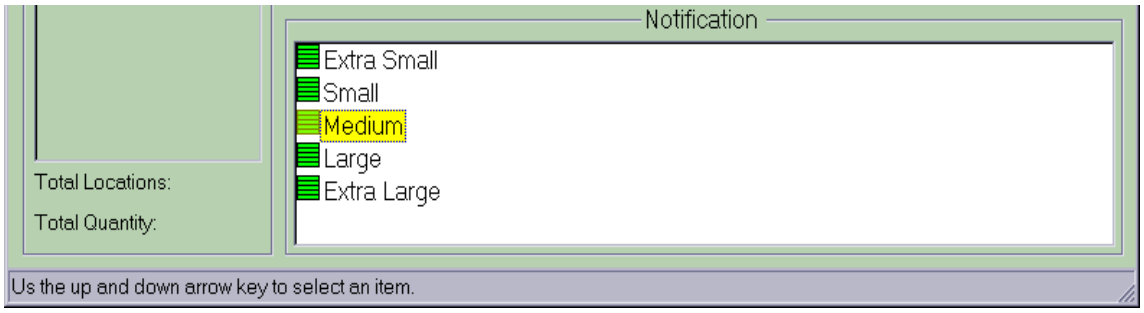
Or, to Place items that already have a location proceed to **STEP 3A**.

STEP 3 Choose Bin Size

The available bin sizes will then be displayed. Choose the size of the bin you wish to Place to by using the **up(–) and down(↓) arrow keys** to highlight the bin size you require and then press **Enter**.



The machine will then move to the closest free location of your chosen size.

If you are selecting locations manually please refer to Section 4.6.

STEP 4 Count and Place Parts

As the machine moves to the required shelf, a lamp will come on, indicating which bin to Place to. The required location in the bin is shown in large red text on the screen.

When the machine has finished rotating, count the parts as you Place the parts away into the bin.

STEP 5 Confirm Quantity

Confirm the Placed quantity by pressing **Enter** or press a remote confirmation button on the carousel bench. The quantity to confirm is shown in large blue text on the screen.

The Place process is now complete.

If you need to change the quantity, refer to Section 4.4.

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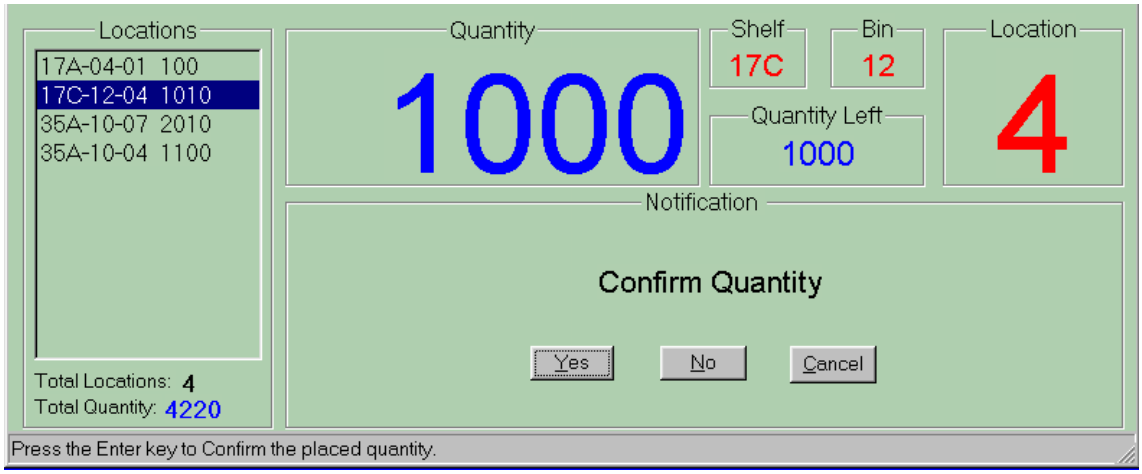
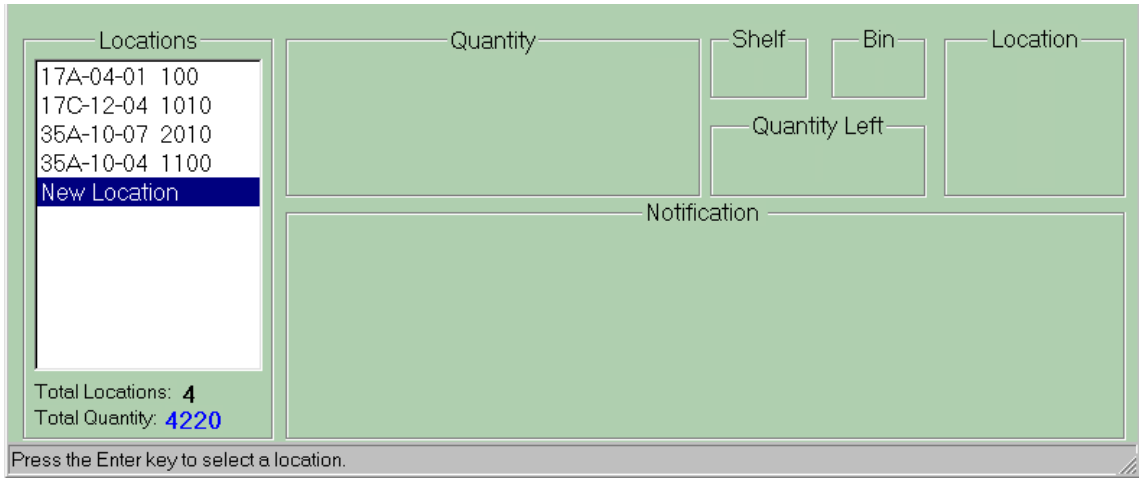


After a part is placed in the machine wCARMAN™ will remember the location details for that part. If you Place a part that already has a location wCARMAN™ will offer you a choice to either Place to a new location or to an existing location. Proceed to **STEP 3A**.

STEP 3A Create New Location

Use the **up(–) and down(↓) arrow keys** to choose a new location to Place to and then press **Enter**, return to **STEP 3.**

Or, to Place the part to an existing location proceed to **STEP 3B**.



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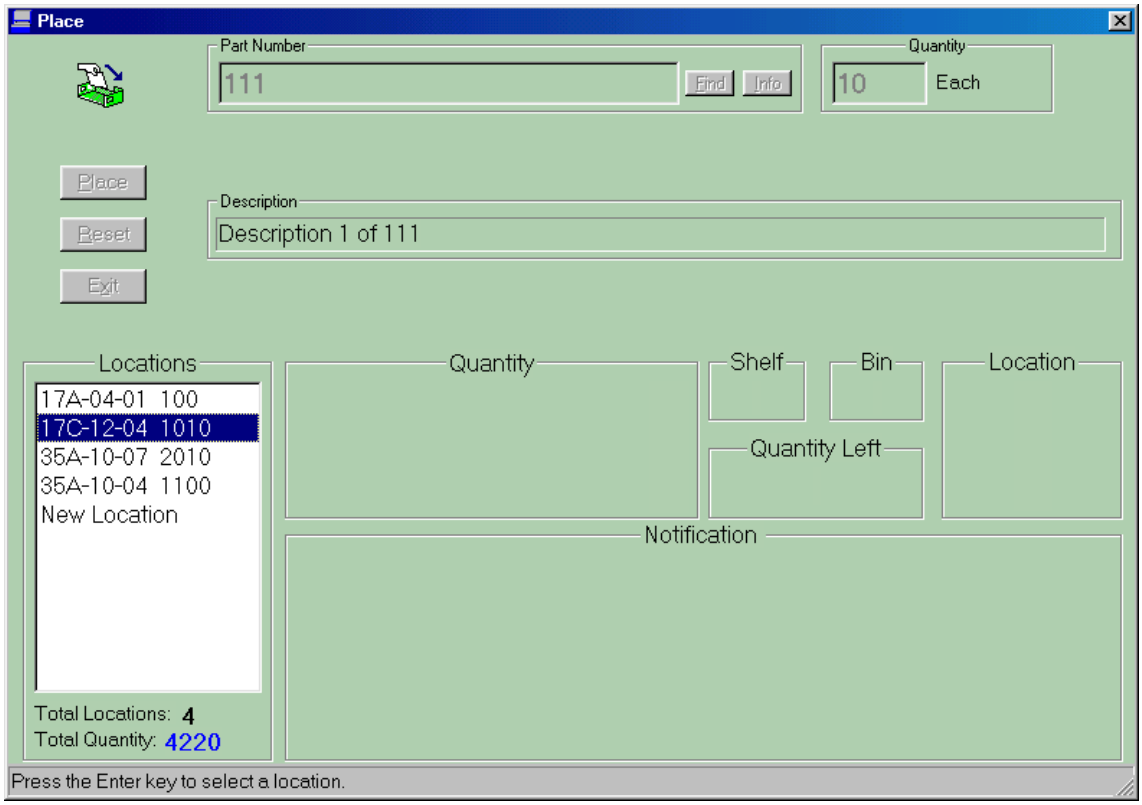
STEP 3B **Choose Existing Location**

Use the **up(–) and down(↓) arrow keys** to choose an existing location to Place to and then press **Enter**. Return to **STEP 4**.

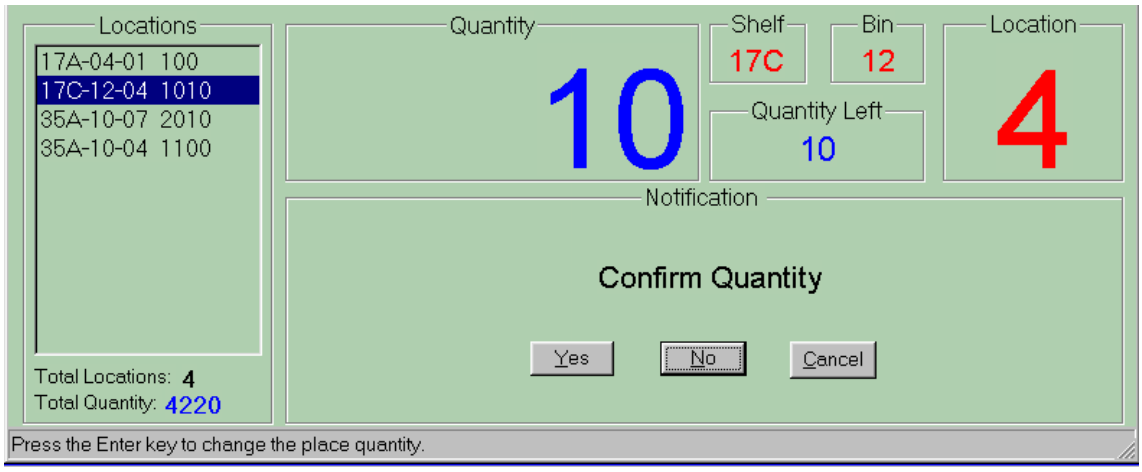


NOTE: YOU CAN USE THE LOCATION MANAGER TO VIEW A PARTS LOCATIONS AND EVEN DELETE EMPTY LOCATIONS.

5.4 Changing Place Quantity

STEP A **No to Confirm Quantity**

To change the Place quantity **Tab** to the No key then press **Enter**.



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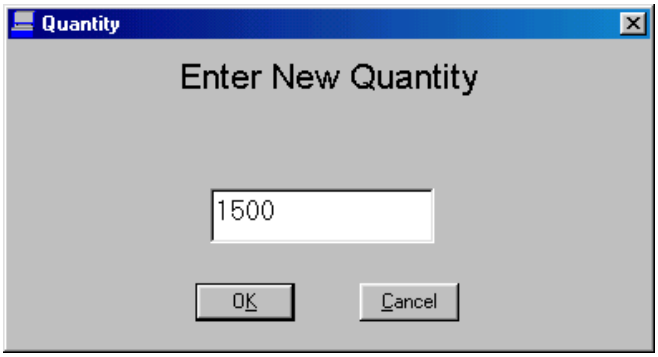
STEP B **Enter New Quantity**

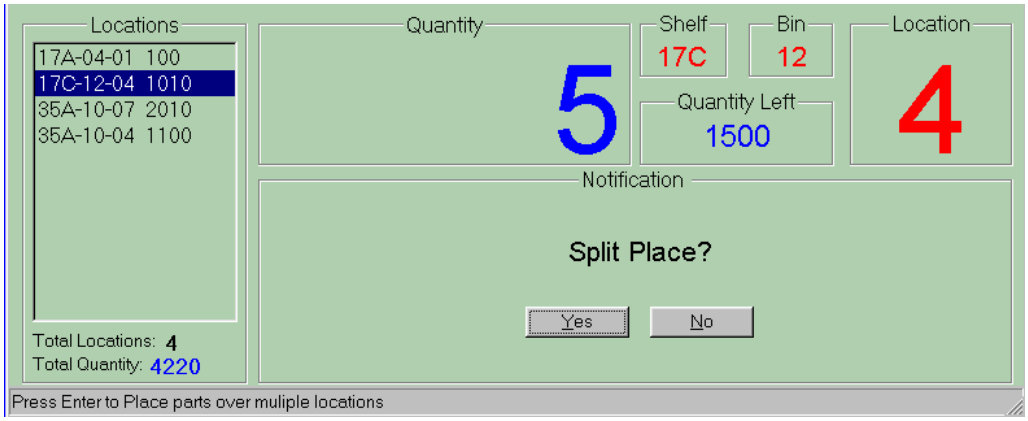
Type in the correct quantity and press **Enter**.



If the quantity you type in is greater than the original quantity return to **STEP 4** in your Place process.

If the quantity you type in is less than the original quantity, wCARMAN™ will ask if you want to split the Place. **Tab** to No then press **Enter**. Return to **STEP 4** in your Place process.

Note this question will not be asked for FIXED SINGLE users.



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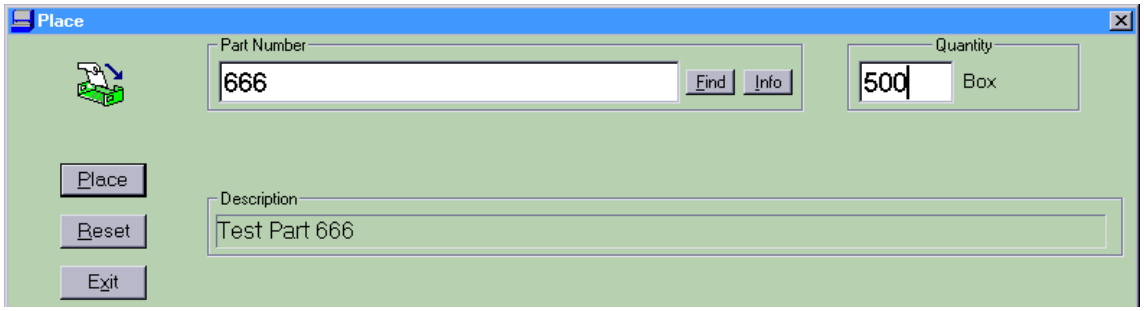
5.5 Split Placing

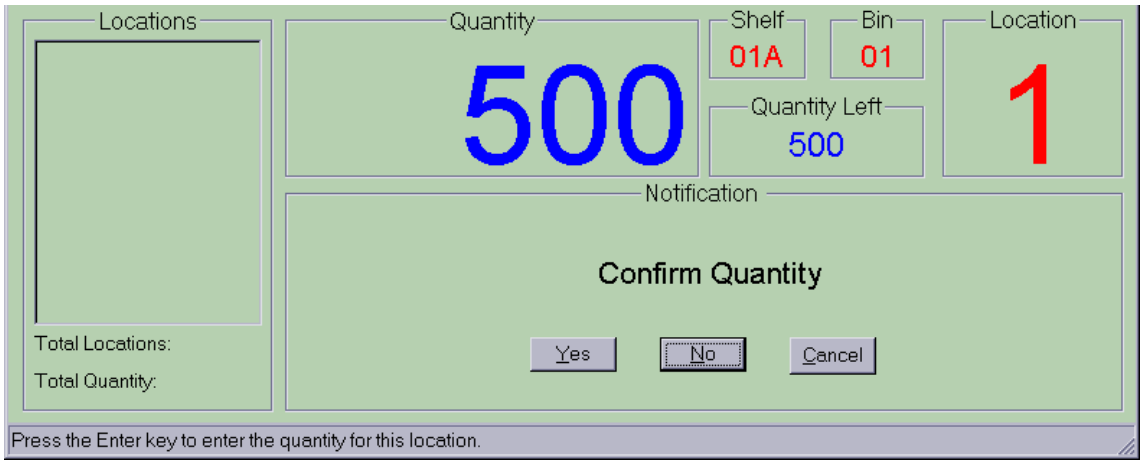
If you cannot fit the quantity you are placing into a bin, or you need to spread a part over multiple locations you can split the Place. You can split a Place over as many locations as you like.

NOTE: Tthis option is not available when using FIXED SINGLE.

STEP A **Enter Total Quantity**
Type the total quantity to Place in at **STEP 2** (Place quantity) in your Place Process.



STEP B **No to Confirm Quantity**
Then at **STEP 5** (confirm quantity) in your Place Process **Tab** to the No key then press **Enter**. Proceed with **Step C**



STEP C **Enter New Quantity**
Enter in you new quantity you want to place.

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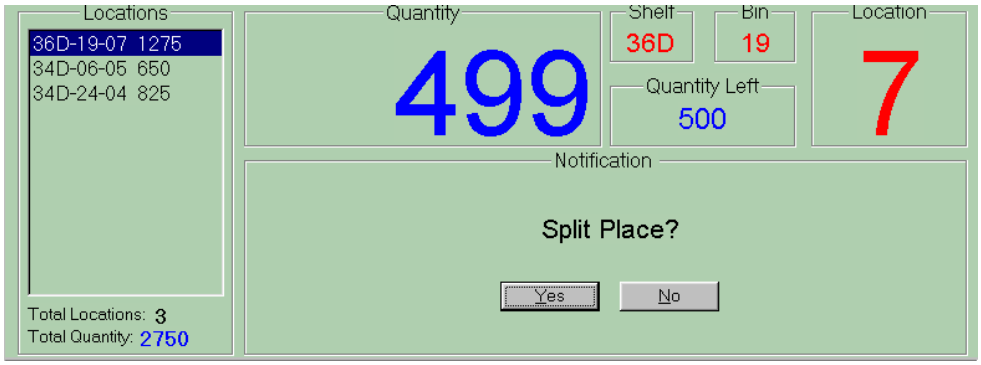
If the quantity you type in is greater than the original quantity return to **STEP 4** in your Place process.

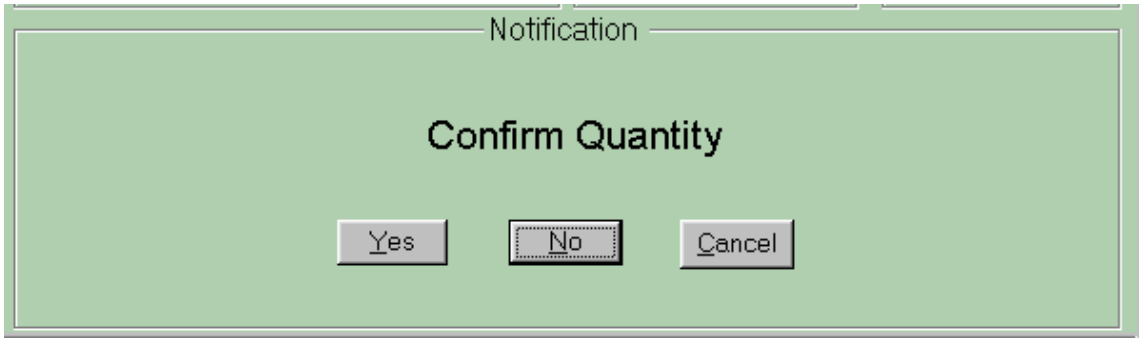
If the quantity you type in is less than the original quantity, wCARMAN™ will ask if you want to split the Place. **Tab** to No then press **Enter**. Return to **STEP 4** in your Place process.

Or if you want to Split Place then press **Enter** when the Yes button is highlighted and proceed with **Step D**



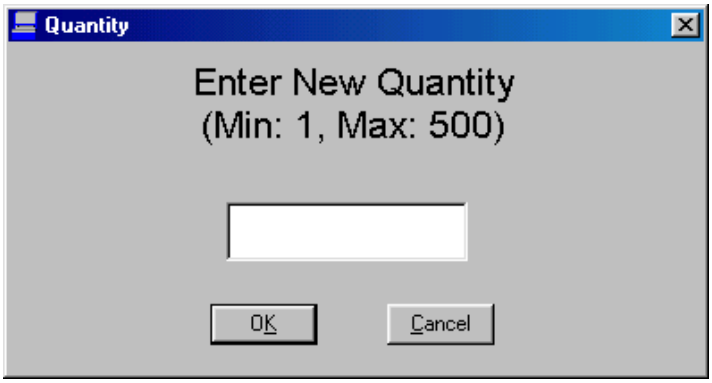
STEP D **Confirm Quantity**

Tab to the No button and press **Enter.** Proceed with **Step E.**



STEP E **Enter First Location Quantity**

Enter the quantity you are going to Place into the first location. You will then be asked to Confirm quantity, press Yes and Proceed with **Step F.**



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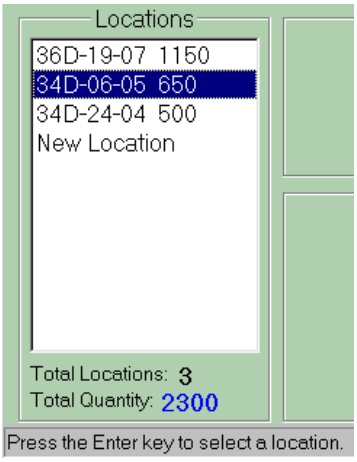
STEP F Choose Second Location

Then use the **up(–) and down(↓) arrow keys** to choose the location of the next part, then press **Enter.** WCARMAN will then ask you to confirm the quantity. You can **Tab** to the No button if you would like to split this again, or just press **Enter** when the Yes button is highlighted. **Proceed with Step G.**



STEP G Count and Place Parts

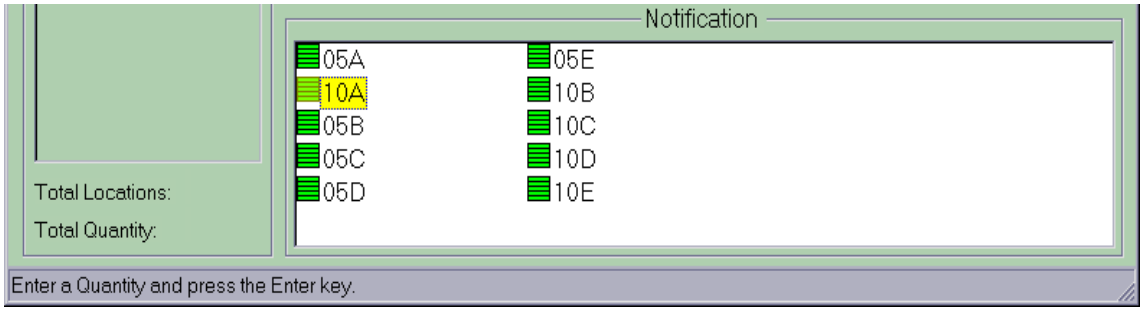
Follow **STEP 4** in your Place process

5.6 Selecting a Location Manually

The manual process allows the operator to choose the shelf, bin and bin location. After you choose the size of a bin you require from the Place screen (**STEP 3**) in your Place Process all the shelves with free locations of your chosen size will be displayed.

STEP A Choose Shelf

Choose the shelf you wish to Place to by using the **up(–) and down(↓) arrow keys** to highlight the shelf number and then press **Enter**.



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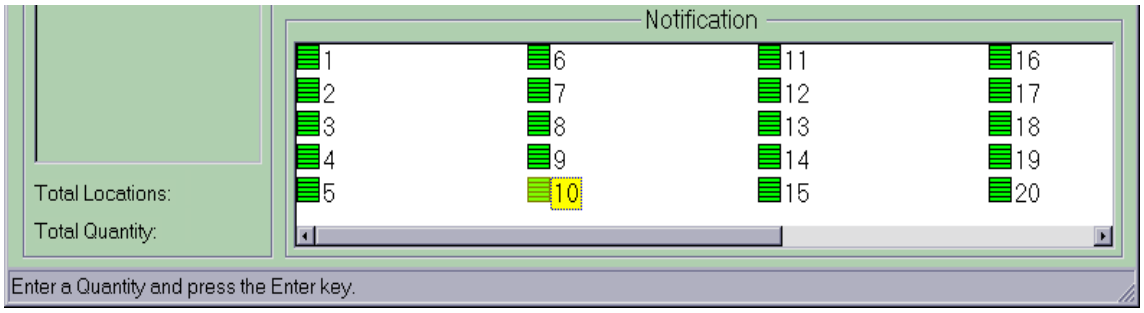
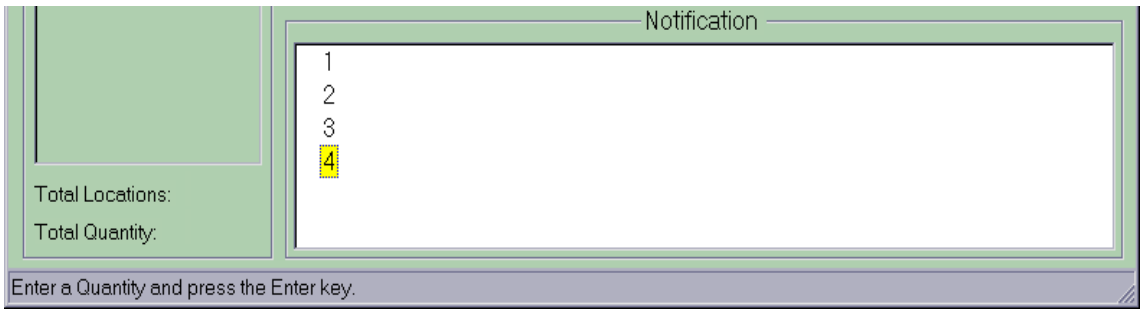
STEP B **Choose Bin**

The free bins in your chosen shelf will then be displayed. In the example all the free bins on shelf 10A are shown. Choose the bin you wish to Place to by using the **up(–) and down(↓) arrow keys** to highlight the bin number and then press **Enter**.



STEP C **Choose Location**

The free locations in your chosen bin will then be displayed. In the example all the free locations in bin 10 are shown. Choose the location you wish to Place to by using the **up(–) and down(↓) arrow keys** to highlight the location number and then press **Enter**. Return to **STEP 4** in your Place process.



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5.7 Return To Stock

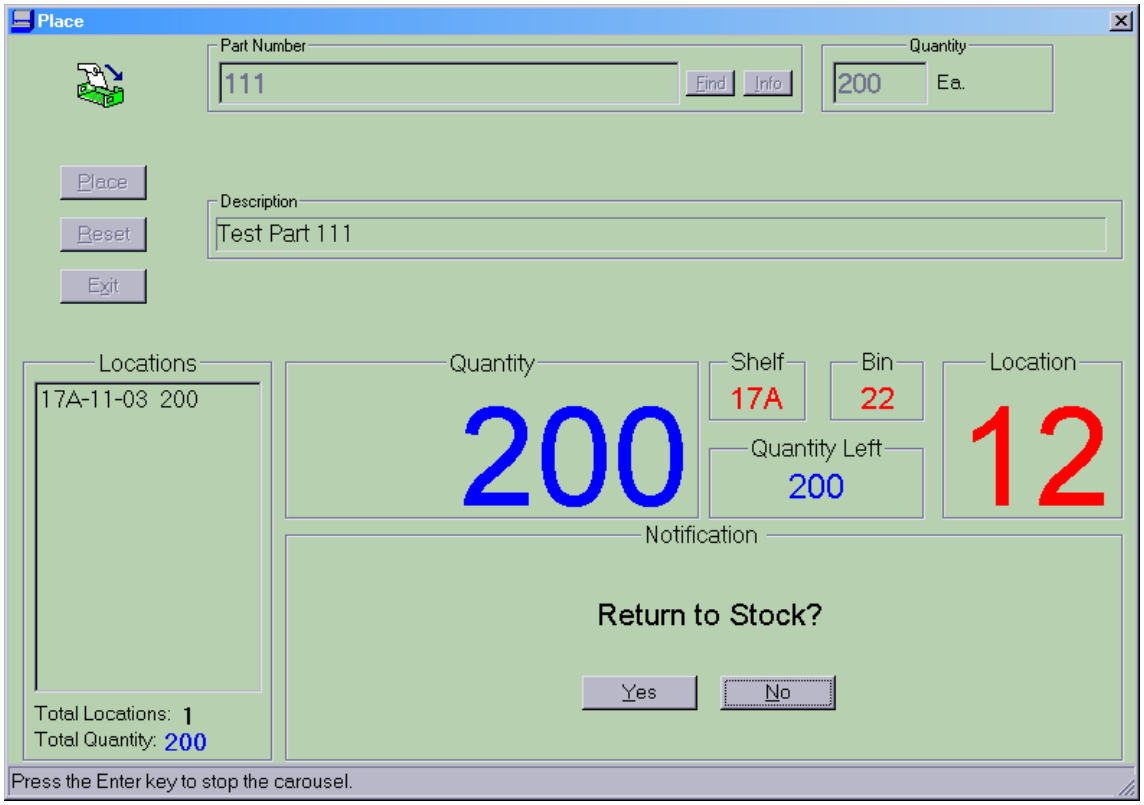
NOTE: THIS OPTION IS NOT AVAILABLE WHEN USING FIXED SINGLE.

'Return to Stock' means you are about to place parts in the machine that have previously been picked from the machine. This may occur because stock has been returned for credit or too many items were picked on a previous occasion.

If your system is configured for the Return to Stock option, then just after **STEP 4** (count and place stock) in your Place process, the Return to Stock question will be asked.

If No The cursor defaults to No, so press **Enter** or a remote confirmation button on the carousel bench. The picking order is unchanged for the part and the part location will be tagged with the current time and date

If Yes **Tab** to the Yes button then press **Enter**. The location you Place to will become the oldest location i.e. the location will be tagged with a time and date that is older than all other instances of the part in the machine. This will ensure that the returned stock is always picked first from the machine when FIFO picking is selected.



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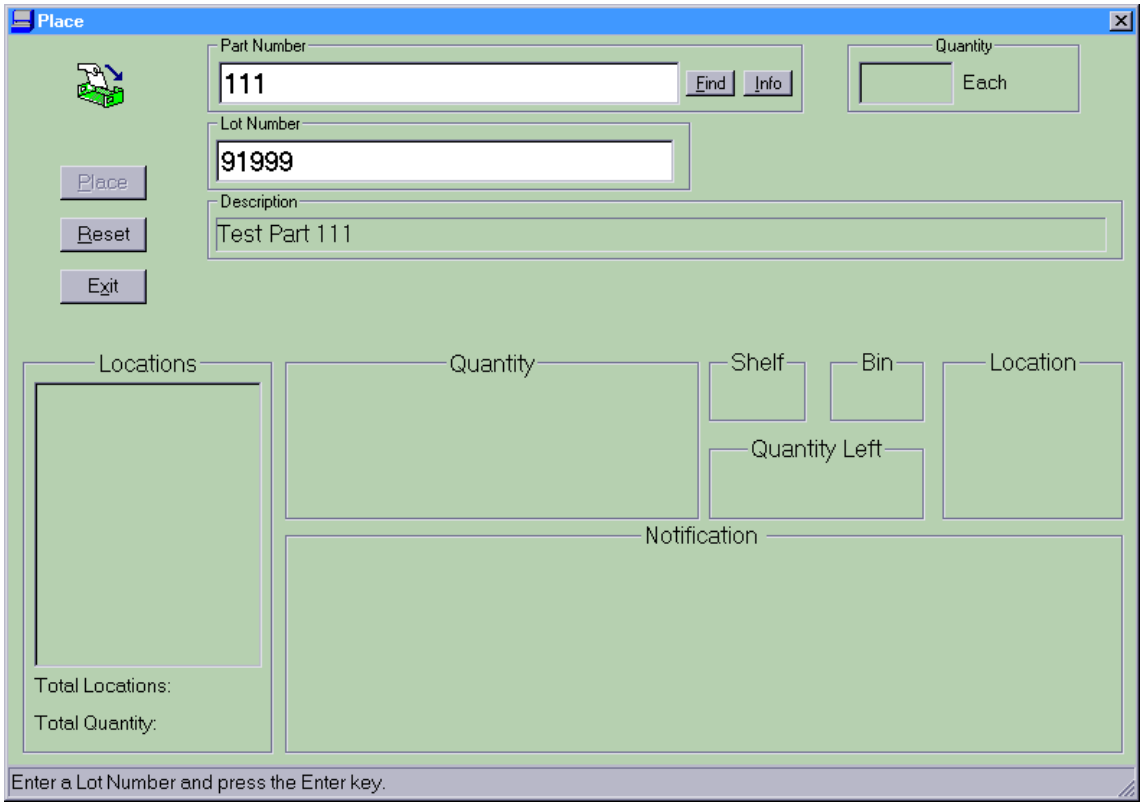
5.8 Placing with Lot Number

After you complete **STEP 1** (enter part number) press the **Enter** key once. This will move the cursor to the Lot Number field.

Type in a Lot Number and press **Enter**. (This number must be unique. It can be used multiple times with the same Part Number, as wCARMAN will always recognise the Part Number it was originally allocated to).

Return to **STEP 2** in your PLACE process.



If the Lot Number has already been used with another Part Number then the following message will be displayed:

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6 Verify Introduction

Verify is Kardex VCA's terminology for the stocktake process. In addition to the mechanisms in place to maximise your stock accuracy, such as pick to zero confirmation, wCARMAN™ provides five (5) methods to verify that the location quantities stored in the machine database are accurate. Each method is described below:

Verify Methods

- Single [Refer to Section 5.1]
  This method is used to Verify the location quantity of a single part in the machine. wCARMAN™ will visit all locations where the part is placed during this process. When the operator confirms the stock quantity for the location, the machine database will be updated immediately. This method may be used for random checks on part quantities.

- List [Refer to Section 5.2]
  This method is used to Verify the location quantities of multiple parts in the machine. The details of the each Verify operation are reported in the List file. The machine database will only be updated during this process if the < > parameter is set in the wCARMAN™ configuration (refer to wCARMAN™ Technical Manual).This method may be used for fast moving items. If the list is retained, the same list can be run periodically.

- Location [Refer to Section 5.3]
  This method is used to Verify the quantity of a single location. When the operator confirms the stock quantity for the location, the machine database will be updated immediately. This method may be used for random checks on location quantities.

- Range [Refer to Section 5.4]
  This method is used to Verify a range of locations within the machine. The smallest range is one shelf i.e. the same shelf could be entered as the starting location and the end location. This method is used to facilitate perpetual stocktake of the machine locations. It is then possible to stocktake a shelf or carrier weekly or monthly, removing the need to undertake an annual global stocktake of the complete machine.

- Global [Refer to Section 5.5]
  This method is used to Verify the quantity held in all locations within the machine. The routine starts at location 01A-01-01 and will visit each location with a quantity greater than zero until all locations have been visited. It is possible to interrupt and resume the Global Verify operation at any time. The routine will continue from the last checked location.

- Zero
  This method is used to Verify all the locations with zero quantity in them, actually have zero quantity in them.

- Quick List
  This method is used to create a Verify list, which is a list of products you want to verify. Then you can run the program

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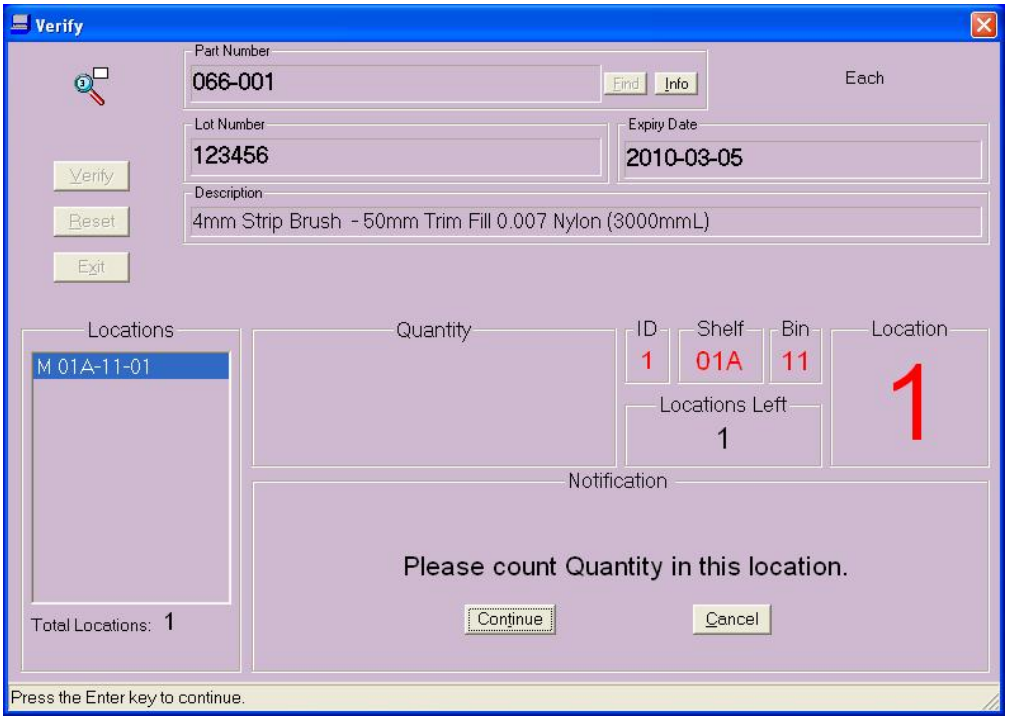
The Verify Screen – At A Glance



	Item	*Description*
1	Part Number Box	Displays the current found part number, Find button and Info button
2	Lot Number Box *	Displays the Lot Number. *This will only be displayed if it is selected in the Placing Configuration.
3	Expiry Date Box *	Displays the Expiry Date. *This will only be displayed if it is selected in the Placing Configuration.
4	Description Box	Displays the current parts description
5	Small Quantity Box	Displays the total quantity to Pick
6	Quantity Left	Displays the remaining quantity to Pick
7	List Identifier Box	Displays the List this Pick operation comes from
8	Locations Box	Displays the current part location(s) and quantities Displays total of locations and total of quantities
9	Shelf Box	Displays current shelf
10	Bin Box	Displays current bin
11	Location Box	Displays current location
12	Notification Box	Displays current message
13	Reset Box	Will clear the form
14	Exit Box	Will close the window
15	Colour	Pink

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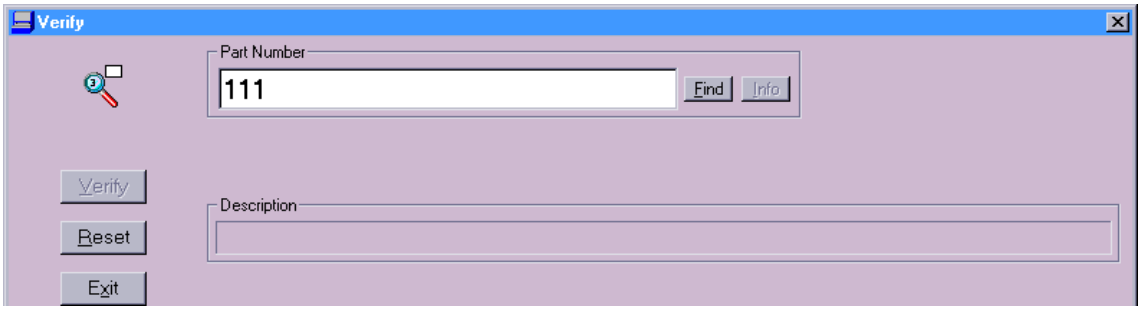
6.1 Verify - Single

STEP 1 **Enter Part Number**
Type in, or Find the part number that you wish to Verify then press **Enter**. Proceed to Section 5.6.



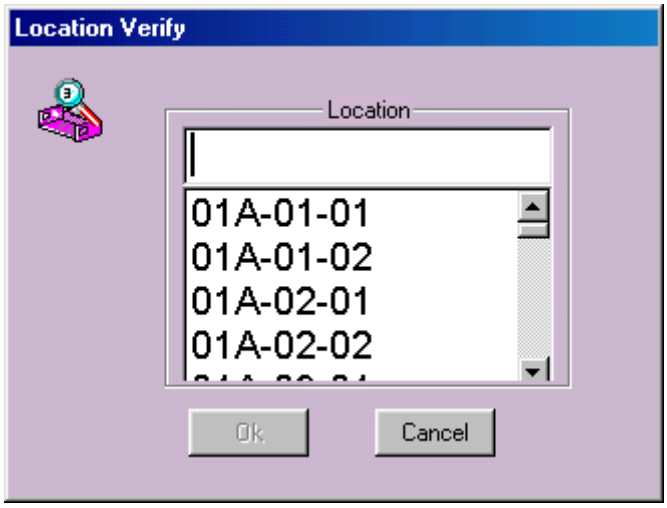
6.2 Verify - List

STEP 1 **Select List(s)**
To select the List or Lists you wish to Verify, then follow **STEP 1** and **STEP 2** in Section 6. Proceed to Section 5.6.

6.3 Verify - Location

STEP 1 **Select Location**
Enter a used location by typing in a shelf, bin and location number. Or, alternatively you can use the **up(–) and down(↓) arrow keys** to highlight the chosen shelf then press **Enter** or **OK**.

Proceed to Section 5.6.



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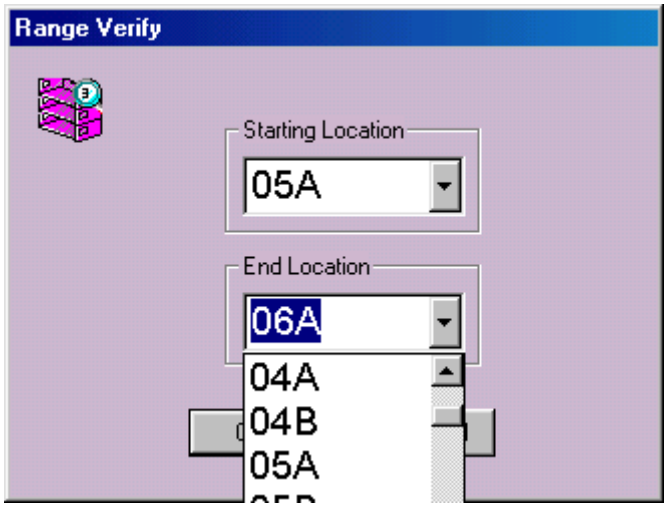
6.4 Verify by Range

STEP 1 **Select Starting Shelf**
Type in a Start Shelf and then press **Enter**. Or, alternatively you can select a Shelf from the pull down menu then press **Enter**.

STEP 2 **Select End Shelf**
Tab to the End location box, then type in an End Shelf and then press **Enter**. Or, alternatively you can select a Shelf from the pull down menu then press **Enter**.

To access the pull down menu and see all the used shelves press **F4**. Use the **up(–) and down(↓) arrow keys** to highlight the chosen shelf then press **Enter**.

Proceed to Section 5.6.



6.5 Verify - Global

The Global Verify process will start automatically when Verify \ Global is selected from the Main Menu. Simply follow the steps outlined in Section 5.6 below.

To interrupt **Tab** to the Cancel button at any time and press **Enter**, or press **Alt & C**.

To resume Select Verify \ Global from the Main Menu and the following message box will appear. Press **Enter** on the keyboard to resume.

wCARMAN 32
A Global Verify as been interrupted.
Do you want to resume the Global Verify?
*** Warning: If you select no, the current verify information will be lost ***
Yes
No

WARNING **If you SELECT the no button, the global verify process will be restarted from the beginning and the global verify report will be deleted**

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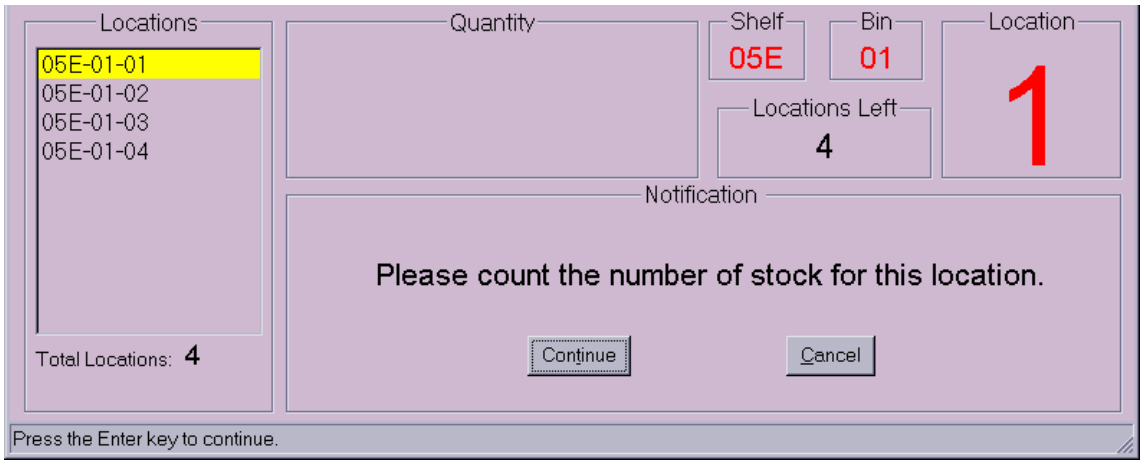
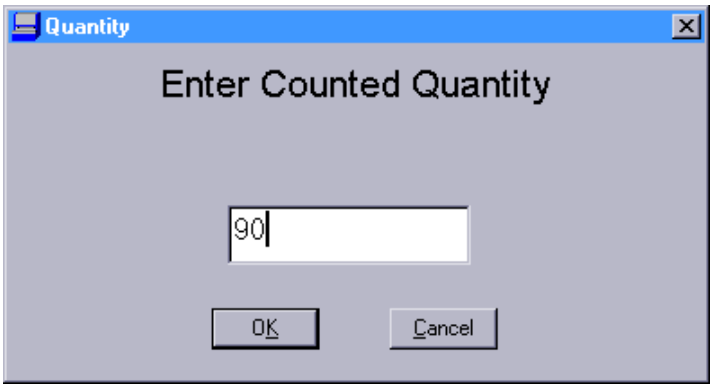
6.6 Verify Process

STEP 1 **Count Stock**

When the machine has finished rotating, count the quantity in the location and press **Enter**.



STEP 3 **Enter Quantity**



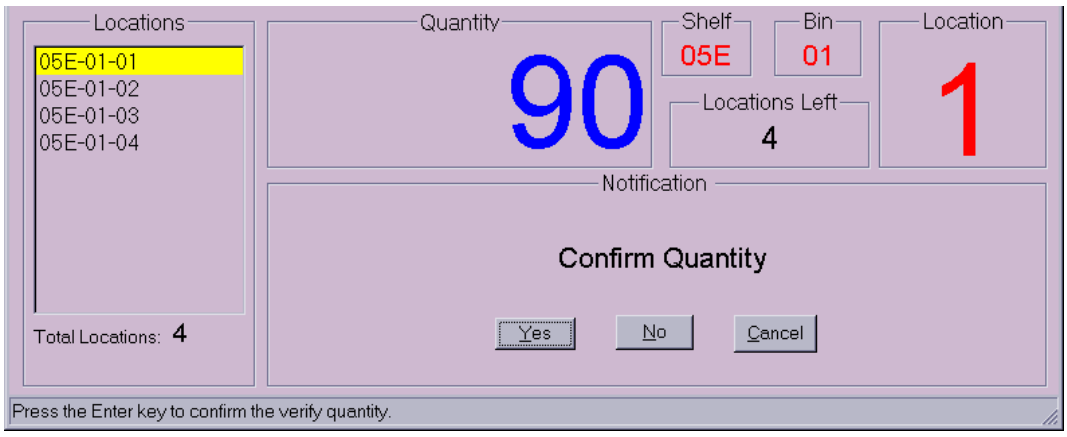
Type the quantity that you counted then press **Enter**.

STEP 4 **Confirm Quantity**

Press **Enter** to confirm the counted quantity.

The Verify Process is now complete.

If there are more locations to count, the machine will move to the next location and repeat the process from **STEP 1**.



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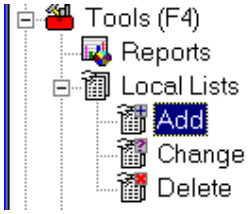
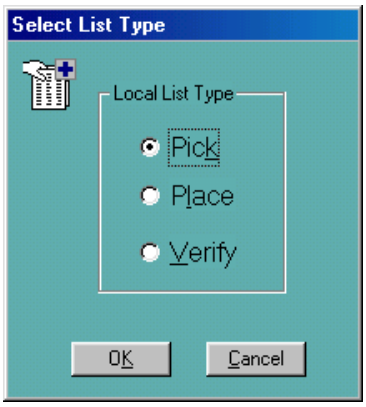
7 Creating Local Lists

To create a PLACE, PICK or VERIFY Local List, go to the Main Menu and select Tools, then Local Lists, then Add. As shown below:



The following screen will then be displayed:

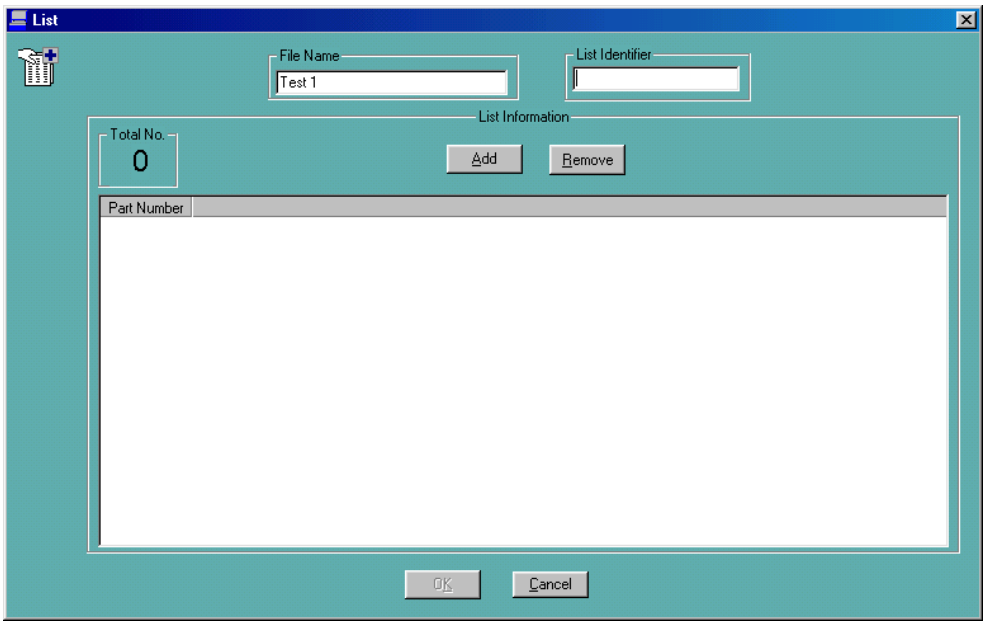
7.1 Select List Type



Choose the List Type you would like to create. Press **Tab** to move the cursor into the Local List Type area, then use the **up(–) and down(↓) arrow keys** to highlight the List Type you require, then **Tab** to the OK button and press **Enter.**

The following screen will then be displayed:

7.2 Adding a List



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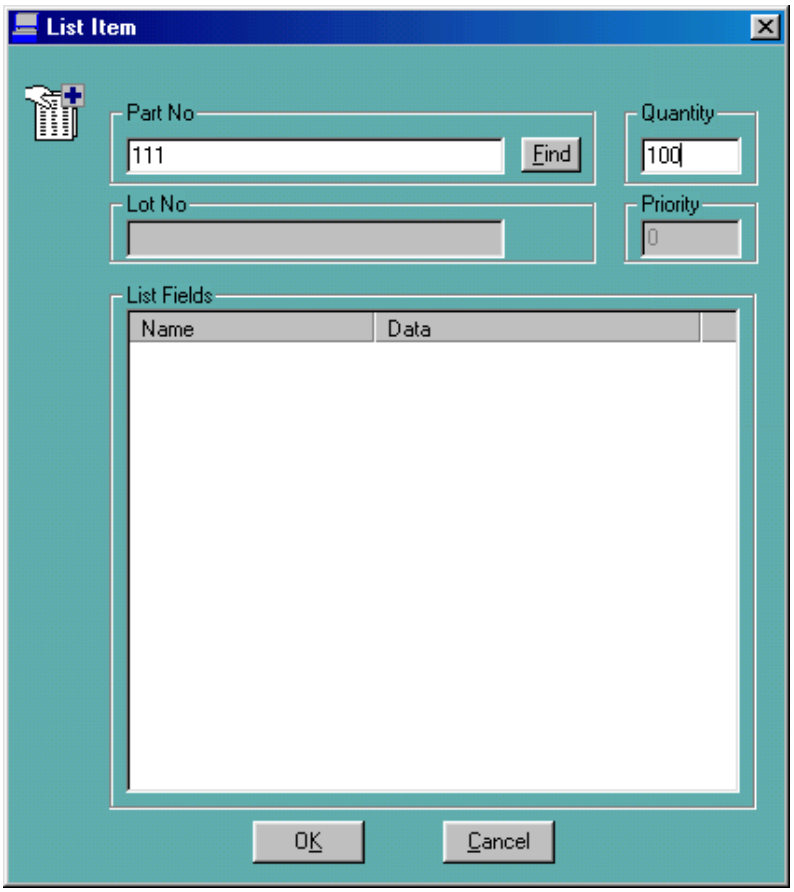
Type in a File Name, and a List Identifier (this is not compulsory) then **Tab** to the Add button and press **Enter**.

The following screen will then be displayed:



Type in your Part Number and then press **Enter**, type in a quantity and press **Enter**, this will take you to the OK button and then press **Enter** again, this will take you back to Adding a List screen, repeat the above process until complete. Once you have completed adding your parts **Tab** to the OK button on the Adding a List screen and press **Enter**.

You will then be back at the Main Menu, see section 7, Selecting Lists, to see how to select the List you just created.

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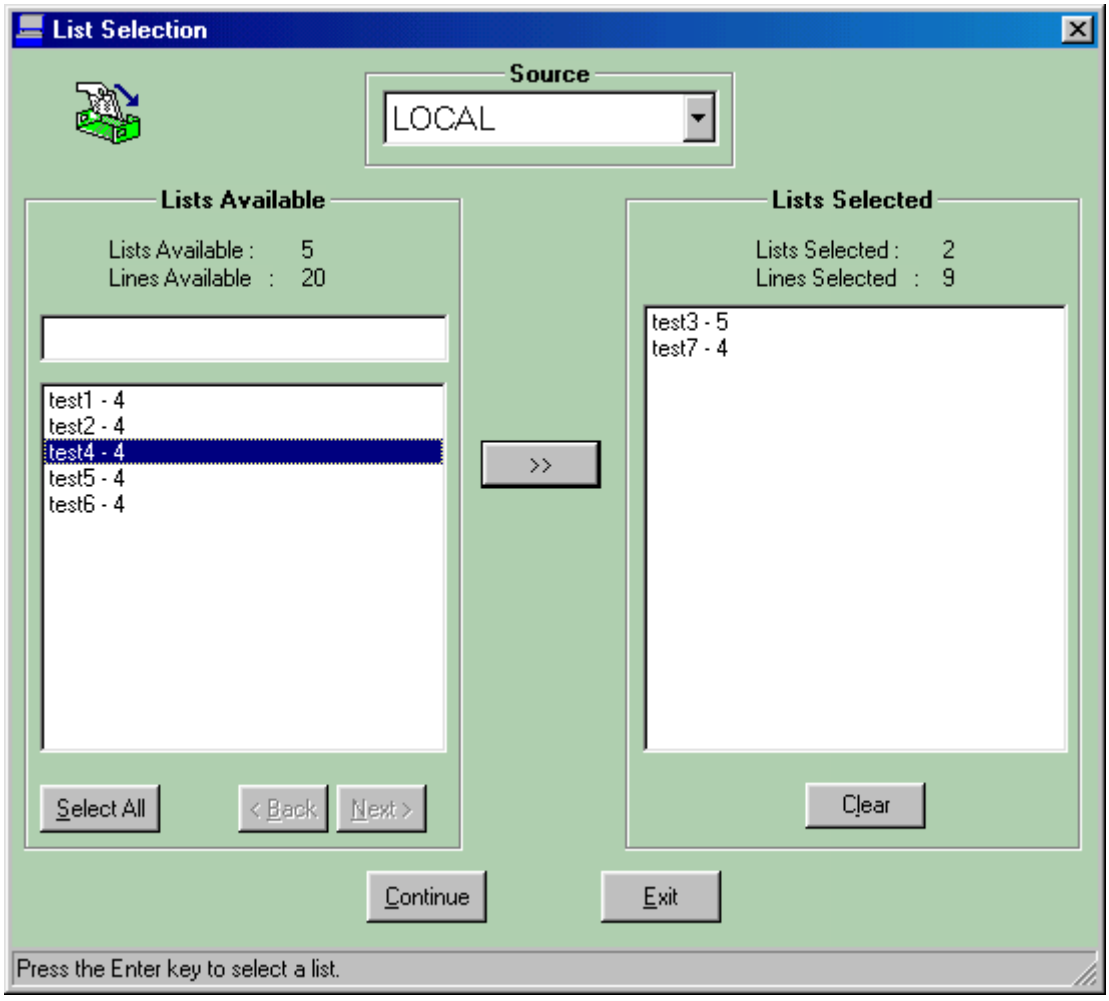
8 Selecting Lists

STEP 1 **Select List(s)**

Press **Tab** to move the cursor into the Lists Available box, then use the **up(–) and down(↓) arrow keys** to highlight the List you require and press **Enter**. The List you have selected will move into the Lists Selected box. Repeat this process until you have selected all the Lists you are going to process.

To remove a List from the List Selected box, **Tab** to the List Selected box and use the **up(–) and down(↓) arrow keys** to highlight the List you want to remove then press **Enter**.



Select All to select all available Lists press **Alt & S** or **Tab** to the Select All button and press **Enter**.

Remove All to remove all selected Lists press **Alt & L** or **Tab** to the Clear button and press **Enter**.

The List Selection screen above shows available HOST Lists. To view LOCAL Lists or INTERRUPTED Lists, **Tab** to the Source box highlighting HOST and press the **down(↓) arrow key** to highlight LOCAL or INTERRUPTED then press **Enter**.

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STEP 2 Continue

Once you have selected the Lists you are going to process press **Alt & C** to Continue or press **Tab** and move the cursor to the Continue button and then press **Enter**.

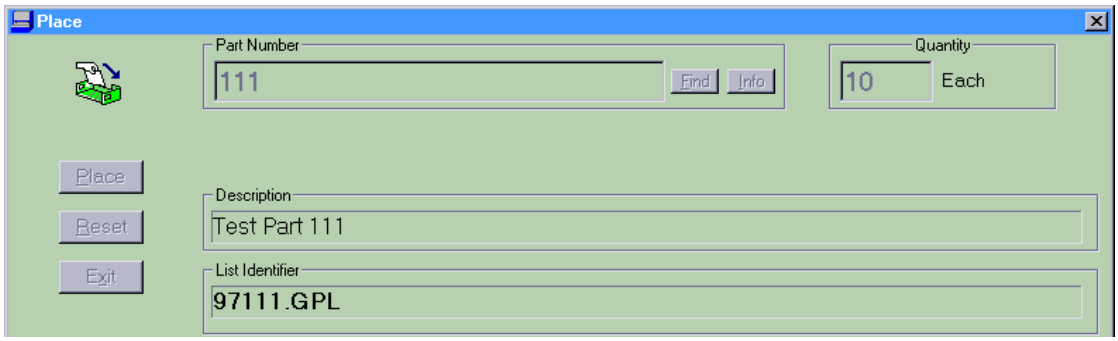
STEP 3 Return to Process

For Place or Pick List operations, return to **STEP 3** in the Place or Pick process you are using as listed below.

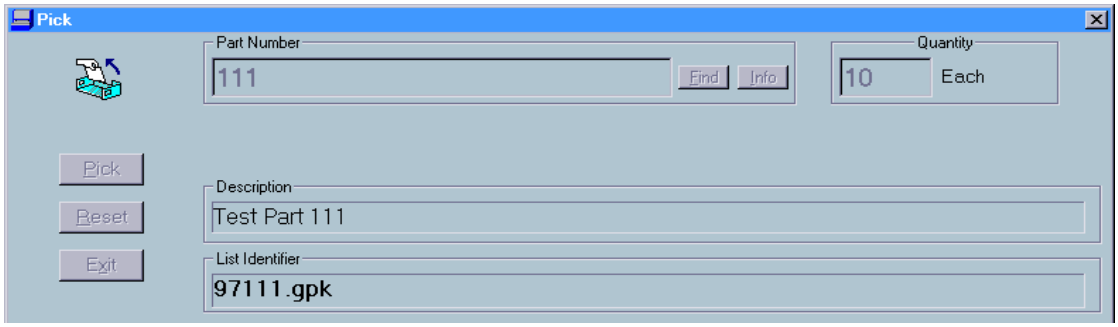
Process	**Place**	**Pick**
Fixed Single STEP 3	Section 4.1	Section 3.1
Dynamic STEP 3	Section 4.2	Section 3.2
Fixed Multi STEP 3	Section 4.3	Section 3.3

Or, For Verify By List follow from **STEP 1** Section 5.6.

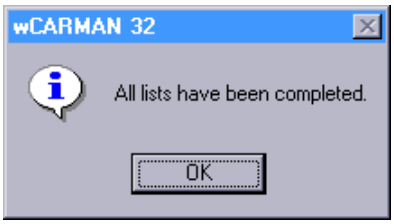
In addition to the standard Place screen, the List Identifier box will be added so you can see, which List you are Placing.



In addition to the standard Pick screen the List Identifier box will be added so you can see which List you are Picking.



Once you have finished processing the List(s), the following message will appear. Press **Enter** to Clear the Message.



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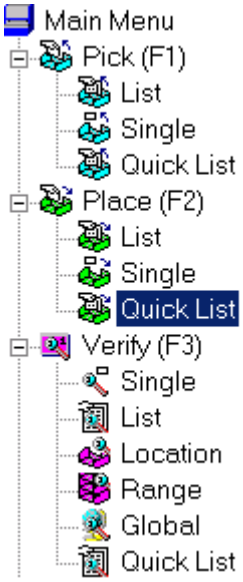
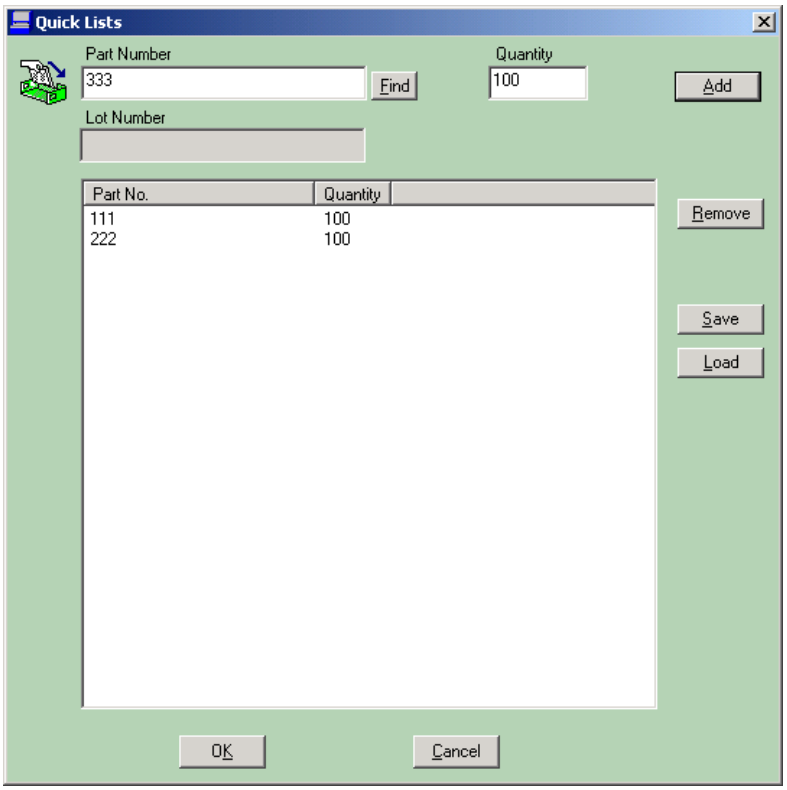
9 Creating Quick List

To create a PLACE, PICK or VERIFY Quick Pick List, go to the Main Menu and select Quick List you desire as shown below:



The following screen will then be displayed:



Type in your Part Number and then press **Enter**, type in a quantity and press **Enter**, this will add your part number and quantity to the list, repeat the above process until your list is complete.

Once you have completed adding your parts **Tab** to the OK button and press **Enter**.

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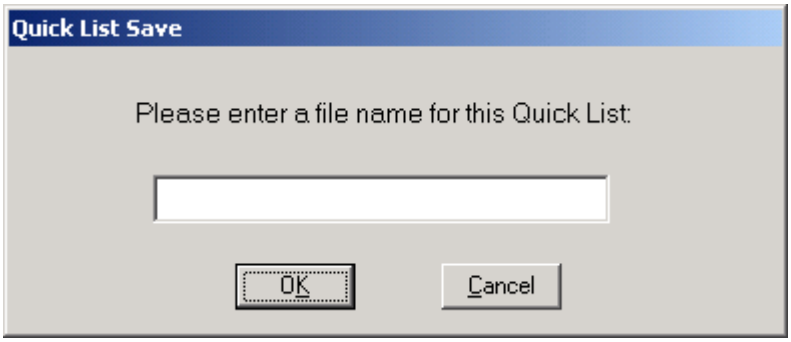
This will then go straight to the placing screen and begin to process your list.

To see how to place please see section 4.X (X meaning the BAM you are using.)

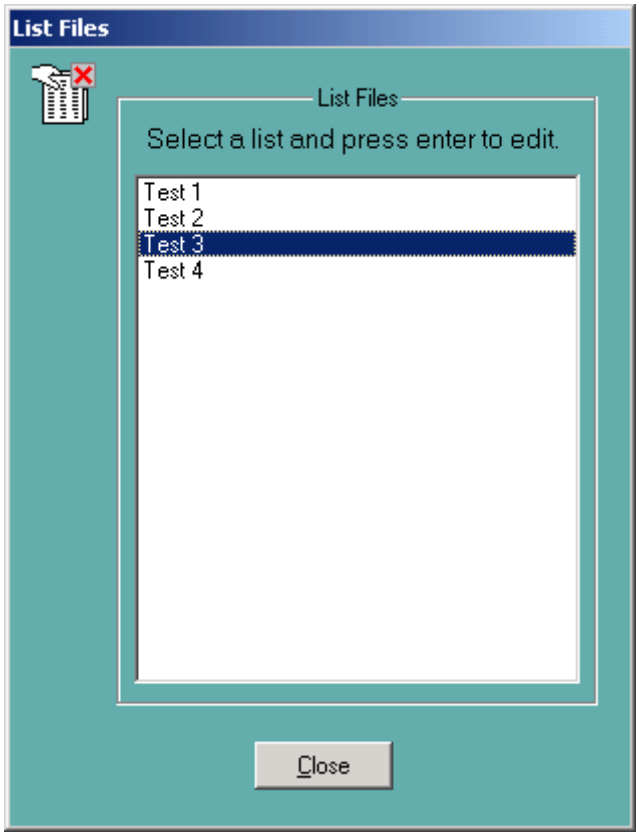
If you would like to Save your list, just press the Save button once you have finished creating your list, the following screen will then be displayed:



Enter in a file name for your Quick List.

If you would like to Load a list that you have previously saved then press the Load button.

The following screen will then be displayed:



Select the list you would like to use by highlighting it (as shown above) and then press **Enter.** You will then be taken back to the Quick Lists screen, press the OK button to process your list.

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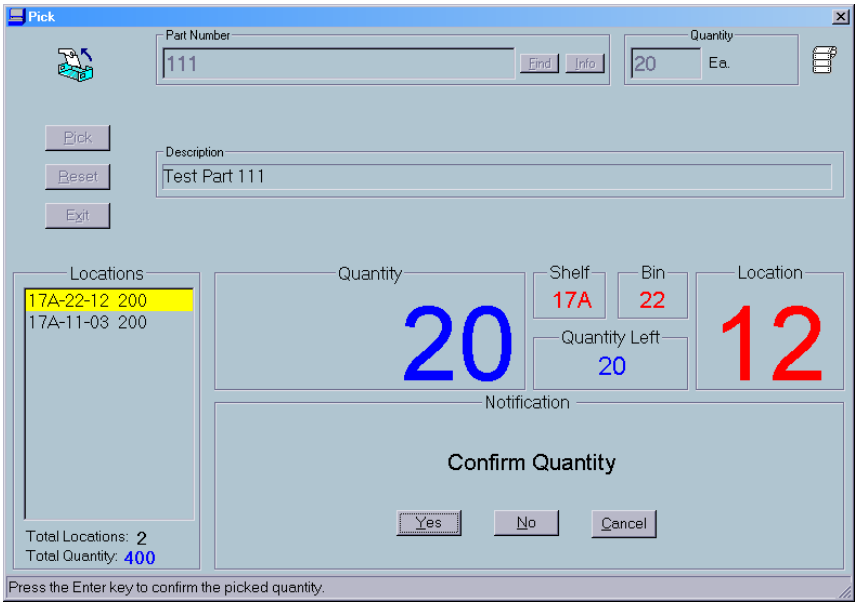
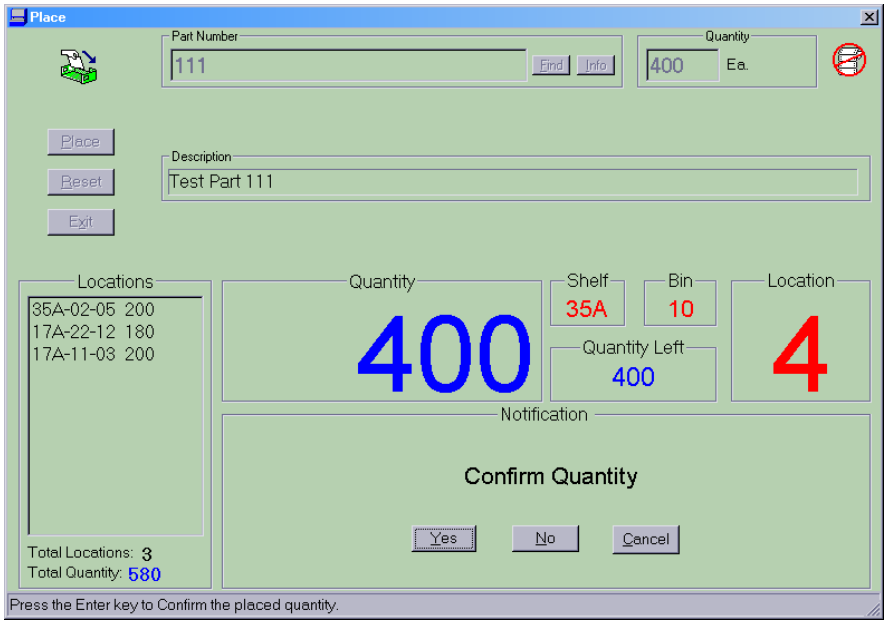
10 Generate Labels While Picking Or Placing

If your machine system has a label printer, it is possible to generate labels for each part as it is picked from the machine. Please refer to the wCARMAN™ Technical Manual for details regarding the set up of label formats and configurations.



It is possible to generate labels on demand or automatically. If your system is set up to generate labels automatically, the label will be generated after you have confirmed your Pick or Place quantity. Both the Pick and Place screen will show a label icon in the top right hand corner.



If your system is set up to print labels on demand, the label icon will be displayed with a red circle around it and line through it as shown below:

You can generate a label by pressing the **F10** key ***before*** you confirm quantity.

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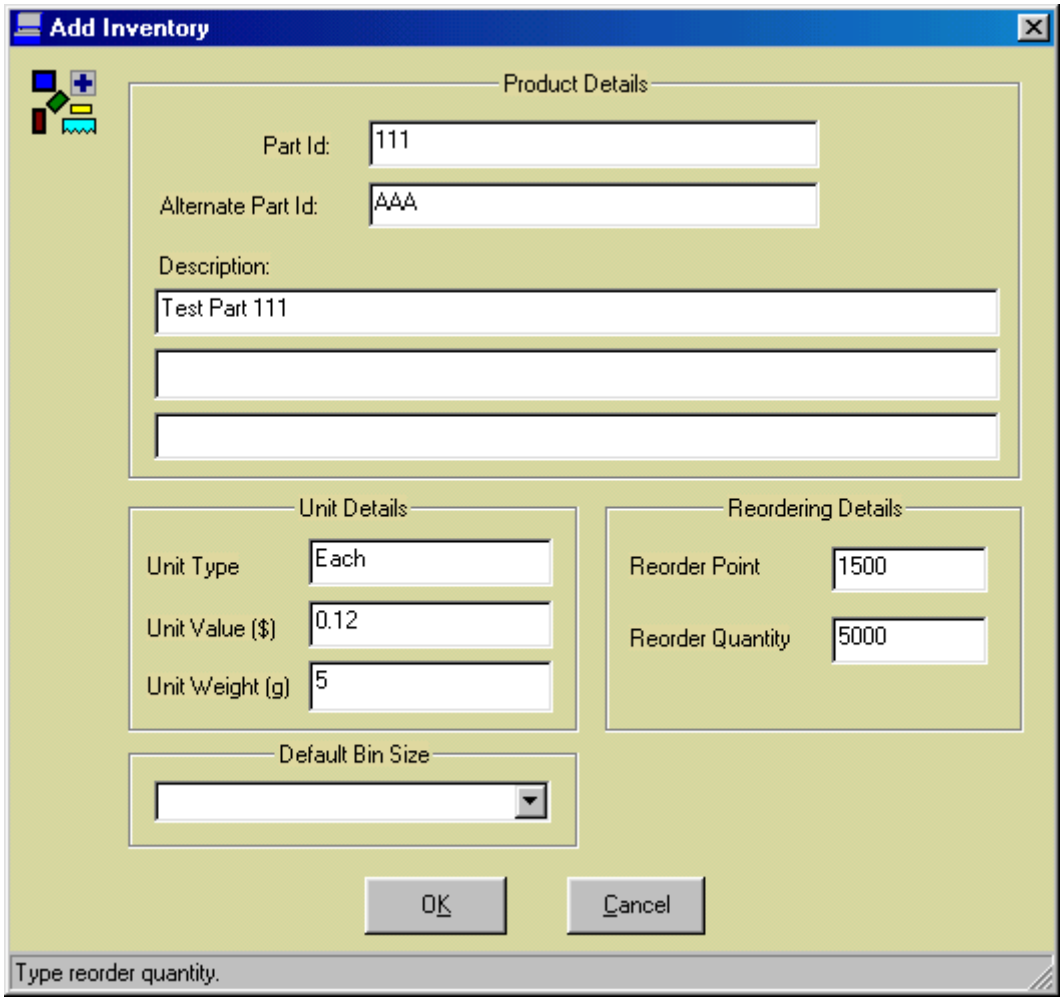
11 Show Inventory Information

From the Pick, Place or Verify screen wCARMAN™ offers the ability to view all details of an inventory item.

STEP A **Enter Part Number**
From the Pick, Place or Verify screen type in a part number, then press **Enter**.

STEP B **Use Info Button**
Then use the Info button by pressing **Alt** & **I**. You can also access the button by pressing **Shift & Tab** at the same time to move the cursor back to the Info button and then press **Enter**.

The Show Inventory screen will then appear:



STEP C **Close Screen**
Press **Enter** to close the Show Inventory screen and wCARMAN™ will return you to the Pick, Place or Verify screen that you started from.

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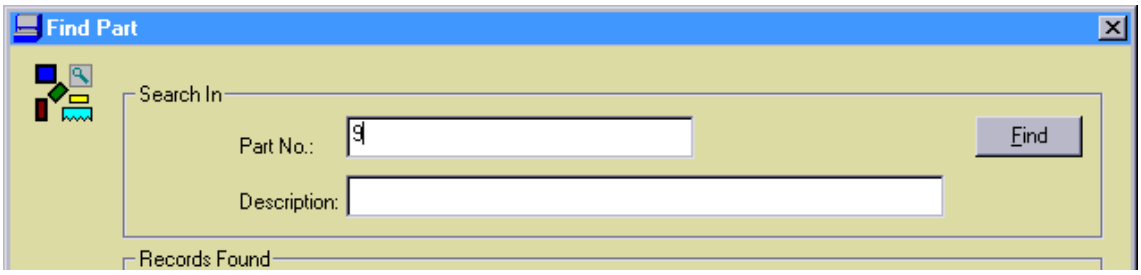
12 Find Part Number

The Find button is available from the Pick, Place or Verify Screens. If you are unsure of a part number you can search for it using the Find button.

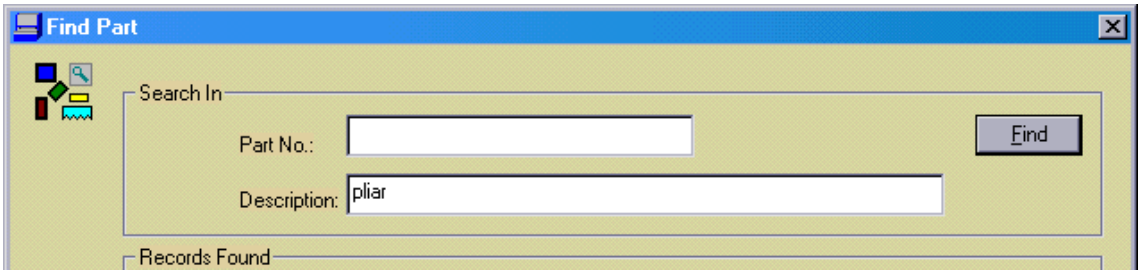
STEP A **Use Find Button**
Use the Find button by pressing **Alt & F**. You can also access the button by pressing **Tab** to move the cursor forward to the Find button and then press **Enter**.

You can search by Part number (refer to **STEP B**) or by Description (refer to **STEP C**) or by both (refer to **STEP D**).

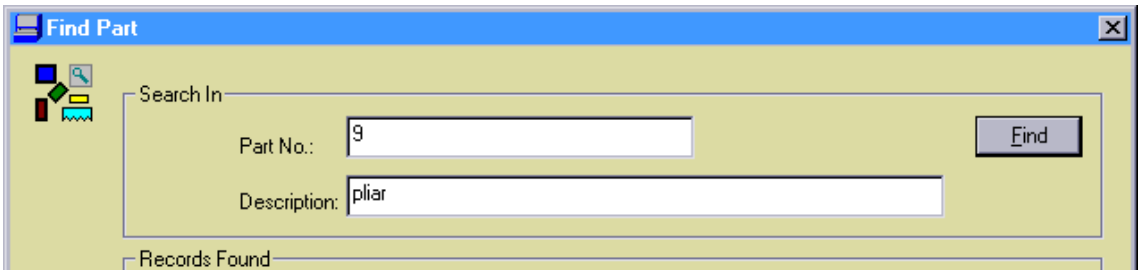
STEP B **Enter Text in Part No. Box**
Type in one or more characters in the Part No box and then press **Enter** twice. Proceed to **STEP E**.



STEP C **Enter Text in Description Box**
Tab to the description box and type in one or more characters then press **Enter**. Proceed to **STEP E**.



STEP D **Enter Text in Part No. and Description Box**
Type in one or more characters in the Part No box, then **Tab** to the Description box. Type in one or more characters then press **Enter**. Proceed to **STEP E**.



All the part numbers with those character (or characters) will be displayed

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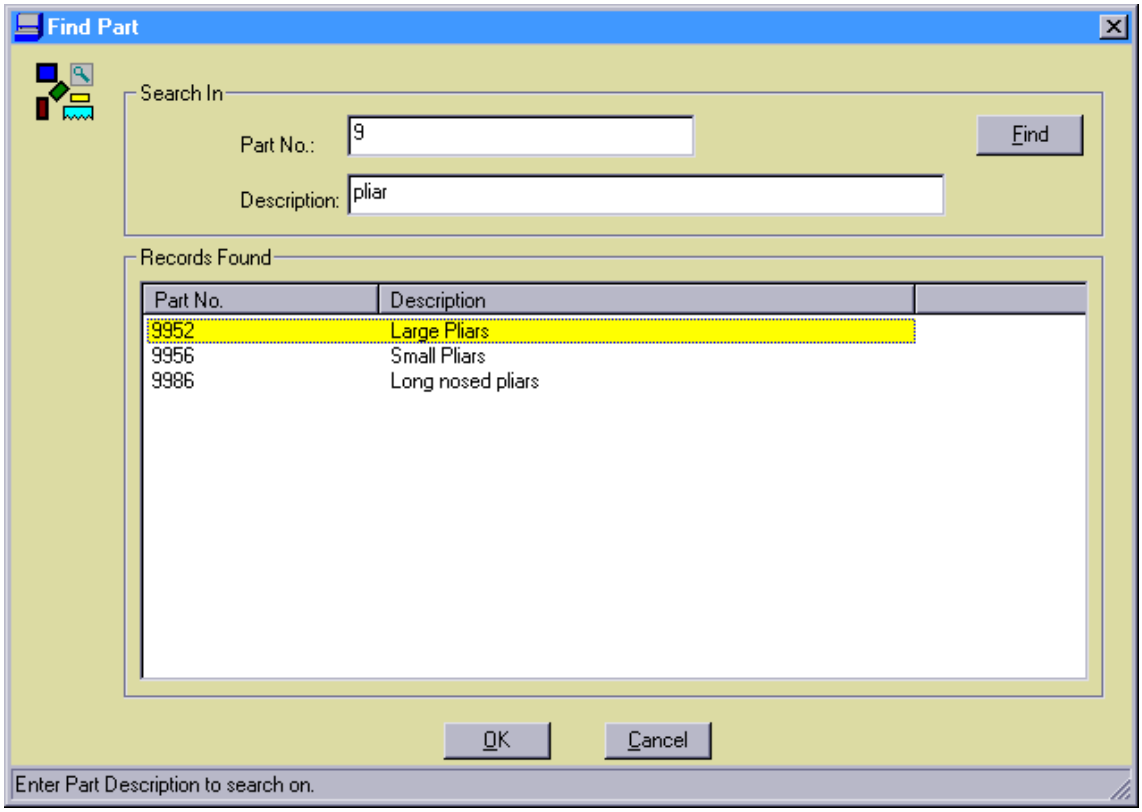
STEP E **Choose Part Number**

Choose the required part number, from the records found, with the **up(–) and down(↓) arrow keys** and then press **Enter**. The Pick, Place or Verify screen will then automatically be updated with the part number that you have chosen.



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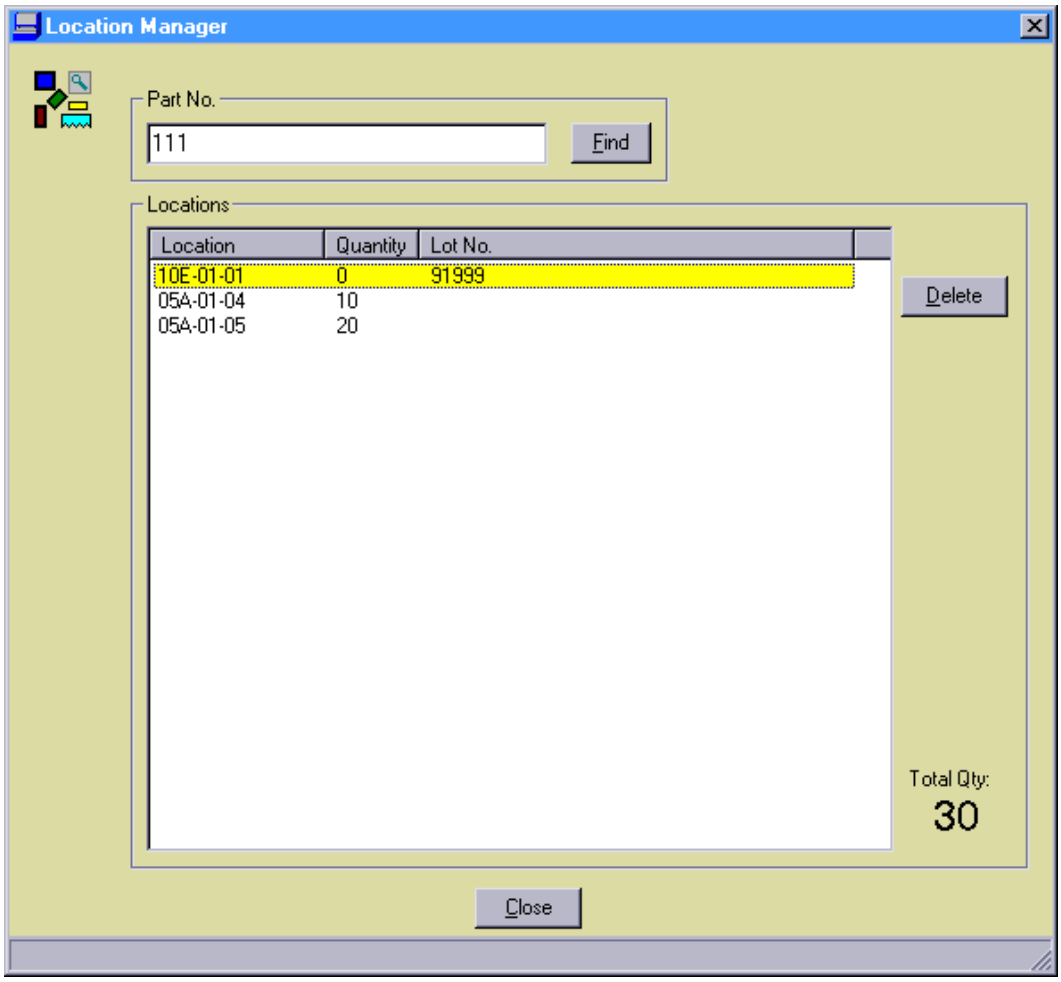
13 Location Manager

The Location Manager is found under the Tools Menu. The Location Manager is a utility that allows you to manage the locations where a part has been placed. You can view all locations for a part and each of their quantities just by typing in a valid part number and pressing Enter.

If a location has a quantity of zero you can delete it, to free the location for other use.

13.1 Delete a Location

STEP 1 **Enter Part Number**



Type in or Find the part number and press **Enter**.

STEP 2 **Select Location**

Use the **up(–) and down(↓) arrow keys** to choose a location and Press **Enter** to Delete.

NOTE: You can not delete a location that has a quantity more than zero.

To Close the Location Manager Press **Alt & C** or press **Enter** on the Close button.

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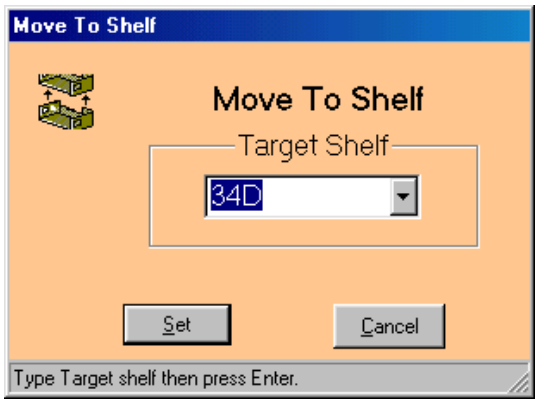
14 Manual Machine Operations

14.1 Move To Shelf

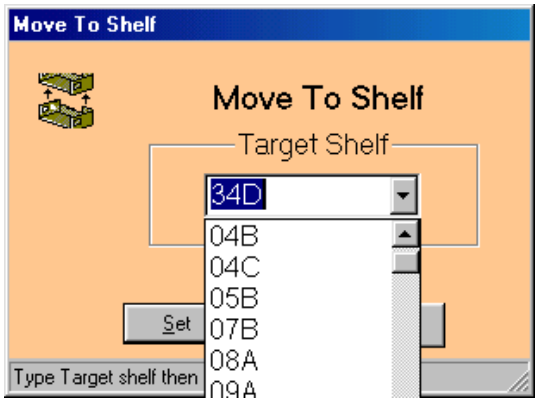
The Move To Shelf function allows the operator to move the machine to a specific shelf number. This function has no input into the database and is primarily used to test the machine operation.

You can select a target shelf by simply over-writing the current shelf number using the keyboard



Or, by selecting a target shelf number from the pull down menu, then press **Enter** to begin machine movement.

To access the pull down menu and see all the available shelves press **F4**. Use the **up(–) and down(↓) arrow keys** to highlight the target shelf then press **Enter** to accept the highlighted shelf.



You can then watch the machines progress on the Move Machine screen, which shows the current location and the target location.

14.2 Set Shelf

The Set Shelf function is used to update the wCARMAN™ shelf position with the actual machine shelf position. This function can be used at any time, and may be required periodically if the machine count gets out of sync with wCARMAN™. The Set Shelf function is presented on system start-up and must be acknowledged by the operator. For a full description of Set Shelf please refer to Section 2.2.

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15 Shortcut Keys

F4	View pull down menu
Alt & C	Cancel
Alt & I	Info
Alt & F	Find
Enter	Confirm operation
Esc	Go back a step
Tab	Move forward to command buttons
Shift & Tab	Move backward to command buttons

Main Menu navigation:

up(–) and down(↓) arrow keys	Navigate Main Menu
right(→) arrow key	Expand a menu
left(←) arrow key	Collapse a menu
Enter	Select item

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16 Trouble Shooting / Fault Messages

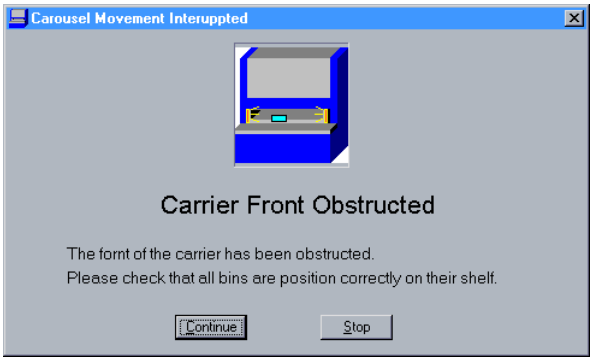
16.1 Vertical Carousels

The carousel is fitted with various safety devices, which operate regardless of the mode in which the carousel is being used. The devices are in place to protect the users and the parts stored in the carousel from harm. A fault message is generated whenever one of the safety devices is activated. Fault messages can also be generated for different modes of operation.

(i) Photocell Eyes

The access door area(s) are fitted with up to three photocell eyes. The photocell beam must be uninterrupted for the carousel to operate. The photocells are positioned to detect if any trays or parts are outside the bounds of the carrier. If the photocell beam is interrupted, the carousel will stop. The problem must be fixed before the carousel can continue.

wCARMAN™ Fault Message:


Carousel Movement Interuppted
Carrier Front Obstructed
The fornt of the carrier has been obstructed.
Please check that all bins are position correctly on their shelf.
Continue
Stop

(ii) Light Grid

The carousel access is fitted with a fail-safe light grid. This device is a self-checking personnel safety device and will stop the carousel immediately if the light grid is obstructed. The light grid will provide hand protection for the operator.

wCARMAN™ Fault Message:

Carousel Movement Interuppted
Door Way Obstructed
The carousel door way has been obstructed.
Please check that nothing is in the way of door way.
Continue
Stop

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(iii) Access Door Switches (Biparting door, if fitted)

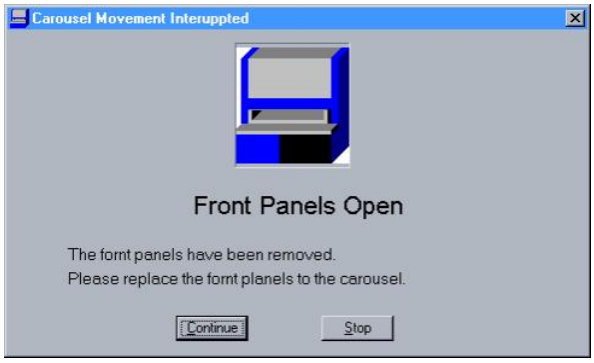
The carousel access doors are fitted with safety switches, which will stop the carousel from operating, if the doors are moved beyond the normal operating position. The doors must be returned to the normal position for the carousel to operate.

wCARMAN™ Fault Message:

(iv) Access Panel Switches

All access panels are fitted with fail safe safety switches that prevent operation of the carousel when any panel is removed.

wCARMAN™ Fault Message:



(v) Emergency Stop Latching Pushbuttons

One E-STOP pushbutton is fitted on each side of the access doors. When operated, the carousel will stop immediately and power will be isolated from the output circuit including the inverter. When operated, these buttons will latch and must be unlatched to be reset. Twisting the pushbuttons in a clockwise direction will unlatch them.

wCARMAN™ Fault Message:

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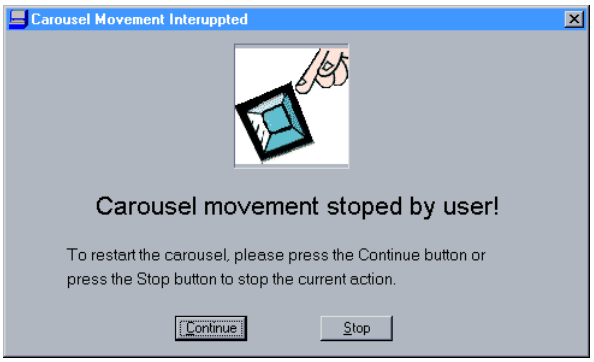
(vi) User Stop

If any button on the keyboard is pressed while the carousel is moving the movement will be stopped.

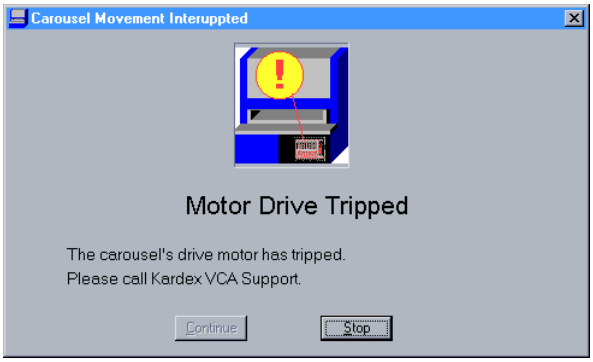
wCARMAN™ Fault Message:


Carousel Movement Interuppted
Carousel movement stoped by user!
To restart the carousel, please press the Continue button or press the Stop button to stop the current action.
Continue
Stop

(vii) Inverter Fault

If the inverter trips, the carousel will stop immediately. The RESET pushbutton must be pressed to restart the inverter.

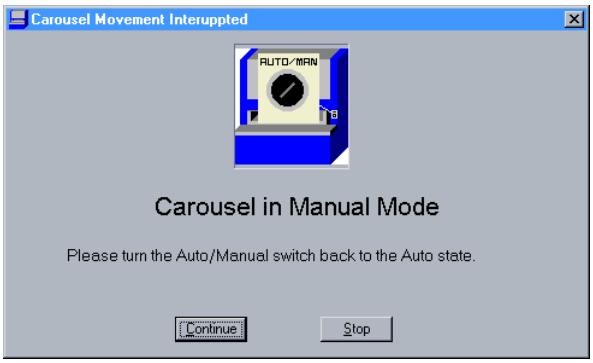
wCARMAN™ Fault Message:



(viii) Manual Mode Fault

If the carousel mode is selected to Manual while wCARMAN™ is in use, the following message will be displayed. The carousel mode must be selected to AUTO for wCARMAN™ to operate correctly.

wCARMAN™ Fault Message:



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NOTE: If you have tried the methods referred to above to clear the fault and you still have not cleared it, then you should power down the carousel and restart it:

Carousel Shut down

- **Refer to Section 2. Shut down wCARMAN as normal.**
- **Shut down the PC as normal.**
- **Turn the carousel isolator to the OFF position.**

Carousel Start Up

- **Turn the carousel isolator to the ON position.**
- **If the PC does not start automatically, press the keyboard hot key. This may be the 'Space Bar', 'S' key or 'Ctrl F1' combination. The actual key stroke will depend on the age of your system.**
- **wCARMAN will start up automatically after the PC has started.**
- **You may need to reset the FAULT lamp. Press the RESET PB. If the FAULT lamp goes out, you're fault has been cleared.**
- **Login to wCARMAN and try to drive the carousel using 'Tools \ Move To Shelf'.**
- **If you are still having problems, please contact your supervisor who will be able to contact Customer Services at Kardex VCA.**

16.2 Shuttles®

To be added.

16.3 Contact Kardex VCA

If there is a problem with your machine or with wCARMAN™ that you cannot solve, please contact your supervisor.

For any problems or assistance please contact:

Kardex VCA Customer Service
Wodonga Office [Australia]
Phone: +61 2 6056 5173
Fax: +61 2 6056 2422
Email: CustomerService@kvca.com.au (Operational problems)
software@kvca.com.au (Software specific problems)

Where problems cannot be immediately resolved, a service call will be arranged. Kardex VCA has trained Service Agents in regional centres and all capital cities.

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